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GenCore version 4.5  
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OM protein - protein search, using sw model

Run on: August 6, 2001, 09:33:05 : Search time 32.37 Seconds

(without alignments)  
580.582 Million cell updates/sec

Title: US-09-524-531a-15

Perfect score: 1637  
Sequence: 1 MALRRPRLRLCARLPDFLL.....VNYIRTDEGDFRHSSEVI 310

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Sequences: 412676 seqs, 60623988 residues

Number of hits satisfying chosen parameters: 412676

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
Maximum Match 100%

Listing first 45 summaries

Database :

A.Geneseq\_0601:\*

- 1: /SIDSR/gcgdata/geneseq/geneseq/AA1980.DAT:\*
- 2: /SIDSR/gcgdata/geneseq/geneseq/AA1981.DAT:\*
- 3: /SIDSR/gcgdata/geneseq/geneseq/AA1982.DAT:\*
- 4: /SIDSR/gcgdata/geneseq/geneseq/AA1983.DAT:\*
- 5: /SIDSR/gcgdata/geneseq/geneseq/AA1984.DAT:\*
- 6: /SIDSR/gcgdata/geneseq/geneseq/AA1985.DAT:\*
- 7: /SIDSR/gcgdata/geneseq/geneseq/AA1986.DAT:\*
- 8: /SIDSR/gcgdata/geneseq/geneseq/AA1987.DAT:\*
- 9: /SIDSR/gcgdata/geneseq/geneseq/AA1988.DAT:\*
- 10: /SIDSR/gcgdata/geneseq/geneseq/AA1989.DAT:\*
- 11: /SIDSR/gcgdata/geneseq/geneseq/AA1990.DAT:\*
- 12: /SIDSR/gcgdata/geneseq/geneseq/AA1991.DAT:\*
- 13: /SIDSR/gcgdata/geneseq/geneseq/AA1992.DAT:\*
- 14: /SIDSR/gcgdata/geneseq/geneseq/AA1993.DAT:\*
- 15: /SIDSR/gcgdata/geneseq/geneseq/AA1994.DAT:\*
- 16: /SIDSR/gcgdata/geneseq/geneseq/AA1995.DAT:\*
- 17: /SIDSR/gcgdata/geneseq/geneseq/AA1996.DAT:\*
- 18: /SIDSR/gcgdata/geneseq/geneseq/AA1997.DAT:\*
- 19: /SIDSR/gcgdata/geneseq/geneseq/AA1998.DAT:\*
- 20: /SIDSR/gcgdata/geneseq/geneseq/AA1999.DAT:\*
- 21: /SIDSR/gcgdata/geneseq/geneseq/AA2000.DAT:\*
- 22: /SIDSR/gcgdata/geneseq/geneseq/AA2001.DAT:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1637	100.0	310	21	Human confuency r
2	1637	100.0	310	21	Human PRO1868 prot
3	1637	100.0	310	21	Human PRO1868 an A33 an
4	1637	100.0	310	22	Human PRO1868 prot
5	1637	100.0	310	22	Secreted protein e
6	1637	100.0	310	22	Secreted protein e
7	1637	100.0	310	22	Secreted protein e
8	1637	100.0	311	21	Human secreted pro
9	1637	100.0	311	21	Human secreted pro
10	1637	100.0	311	21	Human secreted pro
11	1637	100.0	339	22	Gene #13 associate

12	1629	99.5	310	21	AA196394	Human IGFAM-6 immu
13	1498	91.5	285	21	AA193254	Human secreted pro
14	1409	86.1	310	21	AA192772	Human confuency r
15	1409	86.1	310	21	AA192778	Murine confuency
16	488	29.8	298	19	AA185457	Secreted protein e
17	488	29.8	298	22	AA190512	Human junctional a
18	481	29.4	298	19	AA175220	Human secreted pro
19	478.5	29.2	298	21	AA172773	Human confuency r
20	478.5	29.2	298	21	AA172775	Murine confuency
21	461.5	28.2	312	20	AA190860	Human PRO245 prote
22	461.5	28.2	312	20	AA193324	A33 related antige
23	461.5	28.2	312	20	AA193354	Amino acid sequenc
24	461.5	28.2	312	21	AA193421	Human PRO245 prote
25	461.5	28.2	312	21	AA194401	Human PRO245 prote
26	461.5	28.2	312	21	AA170668	Human PRO245 prote
27	461.5	28.2	312	22	AA180222	Human PRO245 prote
28	461.5	28.2	312	22	AA193081	Human angiotensin
29	460	28.1	89	20	AA114772	Human 5' EST seque
30	457.5	27.9	300	19	AA161380	Mouse junctional a
31	457.5	27.9	300	20	AA123325	A33 related antige
32	456.5	27.9	312	22	AA190904	Gene 15 human secr
33	446	27.2	280	21	AA193253	Human PRO307 prote
34	424	25.9	299	20	AA190871	Amino acid sequenc
35	424	25.9	299	20	AA123321	Amino acid sequenc
36	424	25.9	299	20	AA193364	F11 antigen protei
37	424	25.9	299	20	AA174464	Human PRO301 prote
38	424	25.9	299	21	AA194405	Human PRO301 antit
39	424	25.9	299	21	AA195344	Human PRO301 prote
40	424	25.9	299	21	AA170670	Human A33 receptor
41	424	25.9	299	21	AA176011	Human A33 receptor
42	424	25.9	299	21	AA176076	Amino acid sequenc
43	424	25.9	299	22	AA193102	Human PRO301 prote
44	424	25.9	299	22	AA180232	Skin cell protein,
45	424	25.9	299	22	AA195950	

#### ALIGNMENTS

RESULT	1
AA192776	standard; Protein: 310 AA.
ID	AA192776
XX	AA192776:
AC	23-FEB-2001 (first entry)
DT	
XX	Human confuency regulated adhesion molecule 1 #2.
DE	Immunoglobulin superfamily; Ig Sf; vascular adhesion molecule;
KW	Inflammation; cancer; wound; angiogenesis; human;
KW	confuency regulated adhesion molecule 1; CRAM-1; JAM-2.
XX	
OS	Homo sapiens.
XX	
PN	WO200053749-A2.
XX	
PD	14-SEP-2000.
XX	
PF	13-MAR-2000; 2000MO-EP02219.
XX	
PR	11-MAR-1999; 99EP-0200746.
XX	
PA	(RMFD-) RMF DICTAGENE SA.
XX	
PI	Imhof BA, Aurrand-Lions M;
XX	
DR	WPI: 2000-587436/55.
XX	
DR	N-PSDB: AAA95306.
XX	
PT	Isolated human Confuency Regulated Adhesion Molecule 1 or 2 (CRAM-1 or
PT	CRAM-2) polypeptide, useful for treatment of tumors, inflammation
PT	reactions and modulating vascular permeability -

XX Claim 2; Fig 6; 59pp; English.  
 PS  
 CC The present sequence is the human confluency regulated adhesion molecule  
 CC 1 (CRAM-1, also known as JAM-2). CRAM-1 is one of the vascular adhesion  
 CC proteins of the immunoglobulin superfamily (Ig SF). The CRAM-1 protein  
 CC and coding sequence can be used in the treatment of cancer, inflammation,  
 CC to modulate cell-cell interactions and angiogenesis, and in the  
 CC modulation of wound healing.  
 CC  
 XX Sequence 310 AA;  
 SQ

Query Match 100.0%; Score 1637; DB 21; Length 310;  
 Best Local Similarity 100.0%; Pred. No. 1,2e-133;  
 Matches 310; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MALRRPRLRLCARLPDFELLFRGCLIGAVNKKSNRTPVQGESEVSLCITDSQT 60  
 DB 1 malrrprrlrcarlprdflllfrgcllgavnlksnrtpvqgefeesvelsciltsgt 60  
 QY 61 SDPRLEMKKIDQETTYVFEQDKIGDLAQRALIKGTSIKTWNTRDSALYRGEVAR 120  
 DB 61 sdprlewmkkgdqetlyvfedkigdlagrelilgktsiktwnttrdsalylrcevar 120  
 QY 121 NDRKEIDELIVLQVQVPPVPCRVKRAVPYKMATLHCQSEGHPRPHYSMYENDVPL 180  
 DB 121 ndrkeidelvleltqvppvpvrpcrvpkavpygkmatlhqseghprphysmyrnydvp 180  
 QY 181 PTDSPANPRFRNSFHLNSETGLVFTAVHKDSCGYCTASNDGASRCEQEMEYVDL 240  
 DB 181 ptdsranprfrnsfhlsetglvftavhkddsgyyciasndgsarceeqemevydl 240  
 QY 241 NNGGIIGVLYVLAITLITGICCAVRGRGYFINNKKQDESKYKNGKPGVNYITDEEG 300  
 DB 241 nngiglgvlyvlaylaltlgticccavrrgyfinnkqdeskypgkpgvnyitdeeg 300  
 QY 301 DFRHKSFEVI 310  
 DB 301 dfrhksfvl 310

RESULT 2  
 AAB33457  
 ID AAB33457 standard; Protein; 310 AA.

AC AAB33457;

DT 9-JAN-2001 (first entry)

XX Human PRO1868 protein UNQ859 SEQ ID NO:193.

XX human; immune related disease; diagnosis; antinflammatory; cardiant;  
 KM dermatological; antlarthritic; antirheumatic; immunosuppressive;  
 KM haemostatic; antihypertrophic; nootropic; neuroprotective;  
 KM antianemic; hepatotropic; vitricide; antipsoriatic; antiallergic;  
 KM antiasthmatic; systemic lupus erythematosus; rheumatoid arthritis;  
 KM osteoarthritis; spondyloarthropathy; systemic sclerosis; sarcoidosis;  
 KM idiopathic inflammatory myopathy; Sjogren's syndrome; thyroiditis;  
 KM systemic vasculitis; autoimmune haemolytic anaemia; diabetes mellitus;  
 KM autoimmune thrombocytopenia; immune-mediated renal disease;  
 KM demyelinating disease; hepatobiliary disease; Whipple's disease;  
 KM inflammatory bowel disease; gluten-sensitive enteropathy;  
 KM autoimmune disease; immune-mediated skin disease; allergic disease;  
 KM immunological disease; transplantation associated disease;  
 KM graft rejection; graft-versus-host-disease.

OS Homo sapiens.

XX WO2000053758-A2.

XX 14-SEP-2000.

PF 02-MAR-2000; 2000WO-US05841.  
 XX  
 PR 08-MAR-1999; 99WO-US05028.  
 PR 10-MAR-1999; 99US-0123618.  
 PR 12-MAR-1999; 99US-0123957.  
 PR 23-MAR-1999; 99US-0125775.  
 PR 12-APR-1999; 99US-0128849.  
 PR 20-APR-1999; 99WO-US08615.  
 PR 28-APR-1999; 99US-0131445.  
 PR 04-MAY-1999; 99US-0132371.  
 PR 14-MAY-1999; 99US-0134287.  
 PR 02-JUN-1999; 99WO-US12252.  
 PR 23-JUN-1999; 99US-0141037.  
 PR 20-JUL-1999; 99US-0144758.  
 PR 26-JUL-1999; 99US-0145698.  
 PR 28-JUL-1999; 99US-0146222.  
 PR 01-SEP-1999; 99WO-US20111.  
 PR 08-SEP-1999; 99WO-US20594.  
 PR 13-SEP-1999; 99WO-US20944.  
 PR 15-SEP-1999; 99WO-US21090.  
 PR 15-SEP-1999; 99WO-US21547.  
 PR 05-OCT-1999; 99WO-US23089.  
 PR 29-OCT-1999; 99US-0162506.  
 PR 29-NOV-1999; 99WO-US28214.  
 PR 30-NOV-1999; 99WO-US28313.  
 PR 30-NOV-1999; 99WO-US28409.  
 PR 01-DEC-1999; 99WO-US28301.  
 PR 01-DEC-1999; 99WO-US28634.  
 PR 02-DEC-1999; 99WO-US28551.  
 PR 02-DEC-1999; 99WO-US28564.  
 PR 02-DEC-1999; 99WO-US28565.  
 PR 16-DEC-1999; 99WO-US30095.  
 PR 20-DEC-1999; 99WO-US30999.  
 PR 30-DEC-1999; 99WO-US31274.  
 PR 05-JAN-2000; 2000WO-US00219.  
 PR 06-JAN-2000; 2000WO-US00277.  
 PR 06-JAN-2000; 2000WO-US00376.  
 PR 11-FEB-2000; 2000WO-US03565.  
 PR 18-FEB-2000; 2000WO-US04341.  
 PR 18-FEB-2000; 2000WO-US04342.  
 PR 22-FEB-2000; 2000WO-US04414.

(GETH ) GENENTECH INC.

XX Ashkenazi AJ, Baker KP, Goddard A, Gurney AL, Hebert C, Henzel W;  
 PI Kabakoff RC, Lu Y, Pan J, Pennica D, Shelton DL, Smith V;  
 PI Stewart TA, Tumas D, Watanabe CK, Wood WI, Yan M;

WI; 2000-572271/53.

DR N-PSDB; AAC58622.

XX Sixty four PRO polypeptides, useful in the diagnosis and treatment of  
 PT immune related disorders, e.g. systemic lupus erythematosus, rheumatoid  
 PT arthritis, osteoarthritis, thyroiditis and diabetes mellitus -  
 XX  
 Claim 33; Fig 88; 309pp; English.

XX The present invention describes sixty four human PRO proteins which can  
 CC be used in the treatment of immune related diseases. The human PRO  
 CC proteins, anti-PRO antibodies, agonists and antagonists are useful for  
 CC treating and diagnosing immune related disorders. The disorders are  
 CC selected from systemic lupus erythematosus, rheumatoid arthritis,  
 CC osteoarthritis, juvenile chronic arthritis, spondyloarthropathies,  
 CC systemic sclerosis, idiopathic inflammatory myopathies, Sjogren's  
 CC syndrome, systemic vasculitis, sarcoidosis, autoimmune haemolytic  
 CC anaemia, autoimmune thrombocytopenia, thyroiditis, diabetes mellitus,  
 CC immune-mediated renal disease, demyelinating diseases of the central  
 CC and peripheral nervous systems, hepatobiliary diseases, inflammatory  
 CC bowel disease, gluten-sensitive enteropathy and Whipple's disease,  
 CC autoimmune or immune-mediated skin diseases, allergic diseases,  
 CC immunological diseases of the lung, and transplantation associated  
 CC diseases including graft rejection and graft-versus-host-disease.  
 CC AAC58397 to AAC58578 represent PCR primers and hybridisation probes used

CC In the isolation of human PRO sequences. AAC58579 to AAC58642 and  
 CC AAB33414 to AAB33477 represent human PRO polynucleotide and protein  
 CC sequences given in the exemplification of the present invention.  
 XX  
 SO Sequence 310 AA:

Query Match 100.0%; Score 1637; DB 21; Length 310;  
 Best Local Similarity 100.0%; Pred. No. 1.2e-133;  
 Matches 310; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MALRRPRLALCARLPDFLLFRGLIGAVNLKSSNRTPVVOEFSVELSCITTSOT 60  
 DB 1 malrrprrlcarlpdflfrgcllgavnlkssnrtpvvoefesvelscitltsqt 60  
 QY 61 SDRRIEMKKIODEQOTTVVFPDNKIOGDLAAGRAELTGKTSIKINWTRDSALYCEVVAR 120  
 D 61 sdrrieemkkiodqotvvfpdnkiogdlagraeltgktsikinvtrdsalycevar 120  
 QY 121 NDRKEIDEIVIELTVQKPYTPVCRVPKAVPGKMATLHCQESGHPHYSWYRNDVPL 180  
 D 121 ndrkeideivieltvqkpytpvcrvpkavpgkmatlhqeseghprphyswyrndvpl 180  
 QY 181 PTDSRANPRRNRSSFHLNSTGTLVFAVHKDSCGYTCIASNDAGSARCEBDEMEYDL 240  
 DB 181 ptdsranprnrnssfhlNSTGTLVFAVHKDSCGYTCIASNDAGSARCEBDEMEYDL 240  
 QY 241 NIGGIGVIVLAVLALITLITGCAVRGTYFINNKDGSYKPKGPDGVNTRTDEG 300  
 DB 241 niggiGVIVLAVLALITLITGCAVRGTYFINNKDGSYKPKGPDGVNTRTDEG 300  
 QY 301 DFRHKSSEFVI 310  
 DB 301 dfhkssefvi 310

## RESULT 3

AA96735 standard; Protein; 310 AA.

XX AC AAY96735;  
 XX DT 26-SEP-2000 (first entry)  
 XX DE PRO1868, an A33 antigen homologue.  
 XX KM PRO1868: A33 antigen; secreted protein; transmembrane protein;  
 XX KM anti-inflammatory; cytosolic; recombinant production; gene therapy.  
 XX OX Homo sapiens.  
 XX FH Key  
 FH Peptide 1.30  
 FT /label= Signal-peptide  
 FT Modified-site 26..31  
 FT /note= "N-myristoylation site"  
 FT Modified-site 69..77  
 FT /note= "Tyrosine kinase phosphorylation site"  
 FT Modified-site 104..107  
 FT /note= "N-glycosylation site"  
 FT Modified-site 106..109  
 FT /note= "Casein kinase II phosphorylation site"  
 FT Modified-site 107..110  
 FT /note= "GMP- and GMP-dependent protein kinase phosphorylation site"  
 FT Modified-site 192..195  
 FT /note= "N-glycosylation site"  
 FT Modified-site 215..220  
 FT /note= "N-myristoylation site"  
 FT Modified-site 226..231  
 FT /note= "N-myristoylation site"  
 FT Domain 243..263  
 FT /label= transmembrane\_domain

FT Modified-site 243..248  
 FT /note= "N-myristoylation site"  
 FT Modified-site 244..249  
 FT /note= "N-myristoylation site"  
 FT Modified-site 262..267  
 FT /note= "N-myristoylation site"  
 FT Modified-site 296..299  
 FT /note= "Casein kinase II phosphorylation site"  
 XX  
 PN W0200036102-A2.  
 PD 22-JUN-2000.  
 XX  
 XX 01-DEC-1999; 99MO-US28634.  
 XX  
 PR 16-DEC-1998; 98US-0112851.  
 PR 16-DEC-1998; 98US-0113145.  
 PR 22-DEC-1998; 98US-0113511.  
 PR 12-JAN-1999; 99US-0115558.  
 PR 12-JAN-1999; 99US-0115565.  
 PR 12-JAN-1999; 99US-0115733.  
 PR 09-FEB-1999; 99US-0119341.  
 PR 10-FEB-1999; 99US-0119537.  
 PR 12-FEB-1999; 99US-0119965.  
 PR 02-JUN-1999; 99MO-US12252.  
 XX  
 PA (GETH ) GENENTECH INC.  
 PI Botstein D, Desnoyers L, Ferrara N, Fong S, Gao W, Goddard A;  
 PI Gurney AL, Pan J, Roy MA, Stewart TA, Tumas D, Watanabe CK;  
 PI Wood WI;  
 XX  
 DR WPI: 2000-431586/37.  
 DR N-PSDB; AAA51265.  
 XX  
 PT Isolated nucleic acid molecule encodes a PRO polypeptide which is a  
 PT transmembrane polypeptide  
 PS  
 PS Claim 1; Fig 14; 154bp; English.

CC This is PRO1868, a putative homologue of A33 antigen, a known  
 CC colorectal cancer-associated marker. The invention concerns novel  
 CC secreted and transmembrane proteins, designated PRO polypeptides. The  
 CC cDNA and gene sequences are useful in the recombinant production of PRO  
 CC polypeptides, as a hybridization probe to screen libraries to isolate  
 CC cDNAs with sequence identity to PRO polypeptides or to map the gene  
 CC encoding the PRO polypeptides and analyzing genetic disorders. The  
 CC cDNA/gene can also be used to produce transgenic animals useful for the  
 CC development and screening of therapeutically useful reagents. They can  
 CC also be used in gene therapy, e.g. to replace a defective gene.  
 XX  
 XX

SO Sequence 310 AA:

Query Match 100.0%; Score 1637; DB 21; Length 310;  
 Best Local Similarity 100.0%; Pred. No. 1.2e-133;  
 Matches 310; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MALRRPRLALCARLPDFLLFRGLIGAVNLKSSNRTPVVOEFSVELSCITTSOT 60  
 DB 1 malrrprrlcarlpdflfrgcllgavnlkssnrtpvvoefesvelscitltsqt 60  
 QY 61 SDRRIEMKKIODEQOTTVVFPDNKIOGDLAAGRAELTGKTSIKINWTRDSALYCEVVAR 120  
 DB 61 sdrrieemkkiodqotvvfpdnkiogdlagraeltgktsikinvtrdsalycevar 120  
 QY 121 NDRKEIDEIVIELTVQKPYTPVCRVPKAVPGKMATLHCQESGHPHYSWYRNDVPL 180  
 DB 121 ndrkeideivieltvqkpytpvcrvpkavpgkmatlhqeseghprphyswyrndvpl 180  
 QY 181 PTDSRANPRRNRSSFHLNSTGTLVFAVHKDSCGYTCIASNDAGSARCEBDEMEYDL 240  
 DB 181 ptdsranprnrnssfhlNSTGTLVFAVHKDSCGYTCIASNDAGSARCEBDEMEYDL 240

QY 241 NIGGIIGVLLVAVLALITLIGICAYRRGYPIINKKODESYKPKGPDGVNYIRTDEG 300  
 Db 241 niggigvllvavllalittlgicayrrgyfinkkqdesyknpgkpdgvnyirtdeeg 300  
 QY 301 DFRHKSFEVI 310  
 Db 301 dfrhksfvi 310

## RESULT 4

AAB80272  
 ID AAB80272 standard; Protein; 310 AA.  
 XX AAB80272;  
 AC AAB80272;  
 XX 24-APR-2001 (first entry)  
 XX Human PRO1868 protein.

XX Human; PRO: dermatological; antipsoriatic; cytostatic; antiinflammatory;  
 KM antiparkinsonian nootropic; neuroprotective; vulnerary; cardiact;  
 KM antiangiogenic; vasotropic; antisthmatic; antirheumatic; cancer;  
 KM antiarthritic; antiinfertility; antidiabetic; antiviral; diabetes;  
 KM ophthalmological; gene therapy; skin disease; gastrointestinal disorder;  
 KM ischaemia; inflammation.

OS Homo sapiens.

PM WO200104311-A1.

PD 18-JAN-2001.

PE 22-FEB-2000; 2000WO-US04414.

XX 07-JUL-1999; 99US-0143048.  
 PR 26-JUL-1999; 99US-0145698.  
 PR 28-JUL-1999; 99US-0146222.  
 PR 08-SEP-1999; 99WO-US20594.  
 PR 13-SEP-1999; 99WO-US20944.  
 PR 15-SEP-1999; 99WO-US21090.  
 PR 15-SEP-1999; 99WO-US21547.  
 PR 05-OCT-1999; 99WO-US23089.  
 PR 29-NOV-1999; 99WO-US28214.  
 PR 30-NOV-1999; 99WO-US28313.  
 PR 16-DEC-1999; 99WO-US30095.  
 PR 20-DEC-1999; 99WO-US30911.  
 PR 05-DEC-1999; 99WO-US30999.  
 PR 05-JAN-2000; 99WO-US00219.

XX (GENE) GENENTECH INC.

XX Spikenza AJ, Botstein D, Desnoyers L, Eaton DL, Ferrara N;  
 PI Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;  
 PI Godowski PJ, Grimaldi CJ, Gurney AL, Hillan KJ, Kijavlin IJ;  
 PI Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D;  
 PI Williams PM, Wood WI;

XX MPI: 2001-081051/09.

XX N-PSDB; AAF72433.

XX Sixty one nucleic acids encoding PRO polypeptides which are useful in

XX the treatment of skin diseases (e.g. psoriasis), cancers (e.g. lung

XX squamous cell carcinoma) and neurodegenerative diseases (e.g.

XX Alzheimer's disease)

XX Claim 1; Fig 124; 393pp; English.

XX The present sequence is one of sixty one novel secreted and

XX transmembrane PRO polypeptides. The PRO polypeptides are

XX useful for treating skin diseases (e.g. psoriasis), cancers (e.g. lung

XX squamous cell carcinoma), gastrointestinal disorders (e.g.

XX enterocolitis), neurodegenerative diseases (e.g. Alzheimer's disease,

CC Parkinson's disease), wound repair, cardiovascular disorders (e.g.  
 CC endometrial bleeding angiogenesis, ischemias such as coronary  
 CC ischemia, atherosclerosis), inflammatory disorders (e.g. asthma,  
 CC rheumatoid arthritis, multiple sclerosis), infertility, AIDS and  
 CC diabetes and retinal disorders such as retinitis pigmentosa.  
 CC The PRO nucleic acids have applications in molecular biology, including  
 CC use as hybridization probes, and in chromosome and gene mapping.

SQ Sequence 310 AA;

Query Match 100.0%; Score 1637; DB 22; Length 310;  
 Best Local Similarity 100.0%; Pred. No. 1.2e-133;  
 Matches 310; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MALRRPRLICARLPDFELLFRGCLIGAVNLKSSNRPVVOFESEVSLCITDSOT 60  
 Db 1 malrrprrlrcarlpdflillfrgcligavnlkssnrtpvvgesvslcilttsqt 60  
 QY 61 SDPRLEWKRIODEQTTVYFEDNKIOGDLAGRAELIGKTSLKIMVYTRDSALRYCEVVAR 120  
 Db 61 sdprlewkriqdeqtyrfidnkigdlagreligktslkimvtrdsalrycevar 120  
 QY 121 NDRKEIDETIVIELVQVKNPVPVCNPKAVPVGKMATLHCQESGHPRHPSWYNDVPL 180  
 Db 121 ndrkeideivielvqknpvpvcnvpkavpvgkmatlhcqesghprphyswyrndvp1 180  
 QY 181 PTDSRANPERFRNSFHLNSETGLVFTAVHKDSDGYCIASNDGASRCOEDEHYVDL 240  
 Db 181 ptdsrpnprfrnsfhlntsetglvftavhkdsgyyciasndgsarceeqemeydl 240  
 QY 241 NIGGIIGVLLVAVLALITLIGICAYRRGYPIINKKODESYKPKGPDGVNYIRTDEG 300  
 Db 241 niggigvllvavllalittlgicayrrgyfinkkqdesyknpgkpdgvnyirtdeeg 300  
 QY 301 DFRHKSFEVI 310  
 Db 301 dfrhksfvi 310

## RESULT 5

AAB80383  
 ID AAB80383 standard; Protein; 310 AA.

XX AAB80383;

XX 24-APR-2001 (first entry)

XX Secreted protein encoded by gene #13.

XX Secreted protein; human; autoimmune; hyperproliferation;

XX cardiovascular; cerebrovascular; infection; food.

XX Homo sapiens.

XX WO200107459-A1.

XX 01-FEB-2001.

XX 20-JUL-2000; 2000WO-US19735.

XX 23-JUL-1999; 99US-0145220.

XX (HUMA-) HUMAN GENOME SCI INC.

XX Rosen CA, Ruben SM, Ebner R, Duan RD, Ni J, Soppet DR, Moore PA;  
 PI Shi Y, Lafleur DW, Olsen HS, Birse CE, Komatsoulis GA;

XX MPI: 2001-123261/13.

XX New isolated nucleic acid encoding 29 secreted proteins, for  
 PT diagnosing, preventing and treating e.g. autoimmune,  
 PT hyperproliferative, cardiovascular, and ocular diseases or disorders

PT and microorganism infections

Claim 11; Page 538-539; 601pp; English.

CC The present invention relates to 29 human secreted proteins. The  
CC invention is used to prevent autoimmune diseases e.g. rheumatoid  
CC arthritis, hyperproliferative disorders e.g. neoplasms of the  
CC breast or liver, cardiovascular disorders e.g. cardiac arrest,  
CC cerebrovascular disorders e.g. cerebral ischemia, angiogenesis,  
CC nervous system disorders e.g. Alzheimer's disease, infections  
CC caused by bacteria, viruses and fungi and ocular disorders e.g.  
CC corneal infection. Also used in food preparations.

Sequence 310 AA;

Query Match 100.0%; Score 1637; DB 22; Length 310;  
Local Similarity 100.0%; Pred. No. 1.2e-133;  
Matches 310; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Q 1 MALRRPRLRLCARLPDFLLFRGCLIGAVNLKSSNRTPVVQEFSEVELSCIITDSQT 60

DB 1 malrrprlrlcarlpdflfrgcligavnlkssnrtcpvvgfesevelscitdsqt 60

QY 61 SDRPIEMKKIQDEQTYVFFDNKIQDLAGRAELIGKTSIKINWTRDSALYRCEVVAR 120

DB 61 sdprlwmkqiodeqtyvffdnkiqdglaagraelilgktsikimwtrdsalyrcevar 120

QY 121 NDRKEIDETIETLVQKPTPCRVKAVPVGKMATLHCOESGHRPHYSWRNDVPL 180

DB 121 ndrkeidetieltvqkptpcrvkavpvgkmatlhcoesghrphyswrvndvpl 180

QY 181 PTTSRANPRFRNSSFHLNSETGLVFPFAVHKDSCGYCCIASNDAGSARCEOEEMEVYDL 240

DB 181 pttsrnprfrnssfhlntsetglvfpfavaahkdsgycciasndagsarceoeemeydl 240

QY 241 NIGGIIGVLVLAVALITLIGICAVRRGYFINNKODGESYKNGKPDGVNIRITDEEG 300

DB 241 niggiigvllvavalltligicavrrgyfinnkodgesyknpgkpdgvnyirideeg 300

QY 301 DFRHKSSFVI 310

DB 301 dfrhkssfvl 310

R 6

ID AAB80408 standard; protein; 310 AA.

XX AAB80408;

DT 24-APR-2001 (first entry)

DE Secreted protein encoded by gene #38.

KM Secreted protein; human; autoimmune; hyperproliferation;

KM cardiovascular; cerebrovascular; infection; food.

OS Homo sapiens.

XX MO200107459-A1.

PD 01-FEB-2001.

PF 20-JUL-2000; 2000MO-US19735.

PR 23-JUL-1999; 99US-0145220.

PA (HUMA-) HUMAN GENOME SCI INC.

PI Rosen CA, Ruben SM, Ebner R, Duan RD, Ni J, Soppet DR, Moore PA;

PI Shi Y, Lafleur DW, Olsen HS, Birse CE, Komatsoulis GA;

XX

DR WPI; 2001-123261/13.

PT New isolated nucleic acid encoding 29 secreted proteins, for

PT diagnosing, preventing and treating e.g. autoimmune,

PT hyperproliferative, cardiovascular, and ocular diseases or disorders

PT and microorganism infections

Claim 11; Page 557-558; 601pp; English.

CC The present invention relates to 29 human secreted proteins. The  
CC invention is used to prevent autoimmune diseases e.g. rheumatoid  
CC arthritis, hyperproliferative disorders e.g. neoplasms of the  
CC breast or liver, cardiovascular disorders e.g. cardiac arrest,  
CC cerebrovascular disorders e.g. cerebral ischemia, angiogenesis,  
CC nervous system disorders e.g. Alzheimer's disease, infections  
CC caused by bacteria, viruses and fungi and ocular disorders e.g.  
CC corneal infection. Also used in food preparations.

Sequence 310 AA;

Query Match 100.0%; Score 1637; DB 22; Length 310;  
Best Local Similarity 100.0%; Pred. No. 1.2e-133;  
Matches 310; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MALRRPRLRLCARLPDFLLFRGCLIGAVNLKSSNRTPVVQEFSEVELSCIITDSQT 60

DB 1 malrrprlrlcarlpdflfrgcligavnlkssnrtcpvvgfesevelscitdsqt 60

QY 61 SDRPIEMKKIQDEQTYVFFDNKIQDLAGRAELIGKTSIKINWTRDSALYRCEVVAR 120

DB 61 sdprlwmkqiodeqtyvffdnkiqdglaagraelilgktsikimwtrdsalyrcevar 120

QY 121 NDRKEIDETIETLVQKPTPCRVKAVPVGKMATLHCOESGHRPHYSWRNDVPL 180

DB 121 ndrkeidetieltvqkptpcrvkavpvgkmatlhcoesghrphyswrvndvpl 180

QY 181 PTTSRANPRFRNSSFHLNSETGLVFPFAVHKDSCGYCCIASNDAGSARCEOEEMEVYDL 240

DB 181 pttsrnprfrnssfhlntsetglvfpfavaahkdsgycciasndagsarceoeemeydl 240

QY 241 NIGGIIGVLVLAVALITLIGICAVRRGYFINNKODGESYKNGKPDGVNIRITDEEG 300

DB 241 niggiigvllvavalltligicavrrgyfinnkodgesyknpgkpdgvnyirideeg 300

QY 301 DFRHKSSFVI 310

DB 301 dfrhkssfvl 310

R 7

ID AAB80409 standard; protein; 310 AA.

XX AAB80409;

DT 24-APR-2001 (first entry)

DE Secreted protein encoded by gene #39.

KM Secreted protein; human; autoimmune; hyperproliferation;

KM cardiovascular; cerebrovascular; infection; food.

OS Homo sapiens.

XX MO200107459-A1.

PD 01-FEB-2001.

PF 20-JUL-2000; 2000MO-US19735.

PR 23-JUL-1999; 99US-0145220.

XX

XX

(HUMA-) HUMAN GENOME SCI INC.

PI Rosen CA, Ruben SM, Ebner R, Duan RD, Ni J, Soppet DR, Moore PA;  
PI Shi Y, Lafleur DW, Olsen HS, Birse CE, Komatsoulis GA;

DR WPI: 2001-123261/13.

PT New isolated nucleic acid encoding 29 secreted proteins, for  
PT diagnosing, preventing and treating e.g. autoimmune,  
PT hyperproliferative, cardiovascular, and ocular diseases or disorders  
PT and microorganism infections

PS Claim 11; Page 559-560; 601pp; English.

CC The present invention relates to 29 human secreted proteins. The  
CC invention is used to prevent autoimmune diseases e.g. rheumatoid  
CC arthritis, hyperproliferative disorders e.g. neoplasms of the  
CC breast or liver, cardiovascular disorders e.g. cardiac arrest,  
CC cerebrovascular disorders e.g. cerebral ischemia, anglogenesis,  
CC nervous system disorders e.g. Alzheimer's disease, infections  
CC caused by bacteria, viruses and fungi and ocular disorders e.g.  
CC corneal infection. Also used in food preparations.

XX Sequence 310 AA:

Query Match 100.0%; Score 1637; DB 22; Length 310;  
Best Local Similarity 100.0%; Pred. No. 1.2e-133;  
Matches 310; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MALRRPRLRLCARLPDFLLLFRCGLIGAVNLKSSNRPVQEFSEVELSCIITDSQT 60  
DB 1 malrrprrlrlcarlpdffllllfrgcllgavnlksnrtpvqefesvelsciltstqt 60

QY 61 SPPRIEMKKIODEQTYVFDNKGIOGLAGRAEILGKTSIKIMNVRSDALYRCFVAR 120  
DB 61 sppriemkkideqtyvfndkigdlagraelgktsiklmnvrtsdalyrcfvar 120

QY 121 NDRKEIDEIVIELTVQVKVTPVCRVPAVPVKMATLHCQSESGHPRHYSWRNDVPL 180  
DB 121 ndrkeideivieltvovkvtprvcrvpavpvkmatlhqseeghprphyswyrndvpl 180

QY 181 PIDSRRANPRFRNSSFHLNSETGLVFTAVHKDSSGOYICIASNDAGSARCEQEMEVYDL 240  
DB 181 pidsrranprfrnssfhlnsetglvftavhkdsdgyyciasndagsarceqemevydl 240

QY 241 NIGGIIGVLLVAVLALTTIGICAYRRGYFINNKODESYKNPKPGVNYIRTDEEG 300  
DB 241 niggiigvllvavlaalltligicayrrgyfinnkqdesyknpgkpgvnyirtdeeg 300

QY 301 DFRHKSFPVI 310  
DB 301 dfrhksfvi 310

DE 301 dfrhksfvi 310

RESULT 8  
AAB38333  
ID AAB38333 standard; Protein; 311 AA.

AC AAB38333;

DT 31-JAN-2001 (first entry)

XX Human secreted protein encoded by gene 13 clone HAPS79.

KM Immunosuppressive; antiarthritic; antirheumatic; antiproliferative;  
KM cytostatic; cardiant; vasotropic; cerebroprotective; neuroprotective;  
KM nootropic; antibacterial; virucide; fungicide; optalmalological; human;  
KM vulnerrary; gene therapy; infection; secreted protein.

XX Homo sapiens.

XX WO200061623-A1.

XX 19-OCT-2000.

XX 06-APR-2000; 2000WO-US08979.

XX 09-APR-1999; 99US-0128693.

XX 26-APR-1999; 99US-0130991.

PA (HUMA-) HUMAN GENOME SCI INC.

PI Ruben SM, Ni J, Komatsoulis GA, Rosen CA, Soppet DR, Shi Y;  
PI Lafleur DW, Olsen HS, Ebner R, Florence KA, Moore PA, Birse CE;  
PI Young PE;

DR WPI: 2000-647418/62.

PT New nucleic acid molecules encoding 62 human secreted proteins for  
PT diagnosing, preventing, treating or ameliorating medical conditions and  
PT used as food additives or preservatives

PS Claim 11; Page 603-604; 716pp; English.

CC Sequences AAB38321-B38396 represent the amino acid sequences of 62  
CC human secreted proteins encoded by the genes AAC6912-C69587. The genes  
CC and proteins are useful for preventing, ameliorating or treating medical  
CC conditions, e.g. by protein or gene therapy. The genes are isolated from  
CC a range of human tissues disclosed in the specification. The nucleic  
CC acids, proteins, antibodies and (ant)agonists are useful in the  
CC diagnosis, treatment and prevention of: (a) autoimmune diseases e.g.  
CC Rheumatoid arthritis; (b) hyperproliferative disorders e.g. neoplasms  
CC of the breast or liver; (c) cardiovascular disorders e.g. cardiac  
CC arrest; (d) cerebrovascular disorders e.g. cerebral ischemia; (e)  
CC anglogenesis; (f) nervous system disorders e.g. Alzheimer's disease; (g)  
CC infections caused by bacteria, viruses and fungi; and (h) ocular  
CC disorders e.g. corneal infection. The polypeptides can also be used to  
CC aid wound healing and epithelial cell proliferation, to prevent skin  
CC aging due to sunburn, to maintain organs before transplantation, for  
CC supporting cell culture of primary tissues, to regenerate tissues and in  
CC chemotaxis.

XX Sequence 311 AA:

Query Match 100.0%; Score 1637; DB 21; Length 311;  
Best Local Similarity 100.0%; Pred. No. 1.2e-133;  
Matches 310; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MALRRPRLRLCARLPDFLLLFRCGLIGAVNLKSSNRPVQEFSEVELSCIITDSQT 60  
DB 1 malrrprrlrlcarlpdffllllfrgcllgavnlksnrtpvqefesvelsciltstqt 60

QY 61 SPPRIEMKKIODEQTYVFDNKGIOGLAGRAEILGKTSIKIMNVRSDALYRCFVAR 120  
DB 61 sppriemkkideqtyvfndkigdlagraelgktsiklmnvrtsdalyrcfvar 120

QY 121 NDRKEIDEIVIELTVQVKVTPVCRVPAVPVKMATLHCQSESGHPRHYSWRNDVPL 180  
DB 121 ndrkeideivieltvovkvtprvcrvpavpvkmatlhqseeghprphyswyrndvpl 180

QY 181 PIDSRRANPRFRNSSFHLNSETGLVFTAVHKDSSGOYICIASNDAGSARCEQEMEVYDL 240  
DB 181 pidsrranprfrnssfhlnsetglvftavhkdsdgyyciasndagsarceqemevydl 240

QY 241 NIGGIIGVLLVAVLALTTIGICAYRRGYFINNKODESYKNPKPGVNYIRTDEEG 300  
DB 241 niggiigvllvavlaalltligicayrrgyfinnkqdesyknpgkpgvnyirtdeeg 300

QY 301 DFRHKSFPVI 310  
DB 301 dfrhksfvi 310

DE 301 dfrhksfvi 310

RESULT 9



AAB38383  
 ID AAB38383 standard; Protein; 311 AA.  
 AC AAB38383;  
 DT 31-JAN-2001 (first entry)  
 XX  
 XX Human secreted protein encoded by gene 13 clone HAPSA79.  
 XX  
 XX Immunosuppressive; antiarthritic; antirheumatic; antiproliferative;  
 XX cytostatic; cardiant; vasotropic; cerebroprotective; neuroprotective;  
 XX KM nontropic; antibacterial; virucide; fungicide; ophthalmological; human;  
 XX KM vulnerable; gene therapy; infection; secreted protein.  
 XX  
 XX Homo sapiens.  
 OS  
 XX  
 XX MO200061623-A1.  
 XX  
 XX 19-OCT-2000.  
 XX  
 XX 06-APR-2000; 2000MO-US08979.  
 XX  
 XX 09-APR-1999; 99US-0128693.  
 XX 26-APR-1999; 99US-0130991.  
 XX  
 XX (HUMA-) HUMAN GENOME SCI INC.  
 PA  
 XX Ruben SM, Ni J, Komatsoulis GA, Rosen CA, Soppet DR, Shi Y;  
 PI Lafleur DM, Olsen HS, Ebner R, Florence KA, Moore PA, Birse CE;  
 PI Young PE;  
 PI  
 XX MPI: 2000-647418/62.  
 XX  
 XX New nucleic acid molecules encoding 62 human secreted proteins for  
 PT diagnosing, preventing, treating or ameliorating medical conditions and  
 PT used as food additives or preservatives -  
 PT  
 XX  
 XX Claim 11: Page 642-643; 716pp; English.  
 XX  
 XX Sequences AAB38321-B38396 represent the amino acid sequences of 62  
 CC human secreted proteins encoded by the genes AAC69512-C69587. The genes  
 CC and proteins are useful for preventing, ameliorating or treating medical  
 CC conditions, e.g. by protein or gene therapy. The genes are isolated from  
 CC a range of human tissues disclosed in the specification. The nucleic  
 CC acids, proteins, antibodies and (ant)agonists are useful in the  
 CC diagnosis, treatment and prevention of: (a) autoimmune diseases e.g.  
 CC rheumatoid arthritis; (b) hyperproliferative disorders e.g. neoplasms  
 CC of the breast or liver; (c) cardiovascular disorders e.g. cardiac  
 CC arrest; (d) cerebrovascular disorders e.g. cerebral ischemia; (e)  
 CC angiogenesis; (f) nervous system disorders e.g. Alzheimer's disease; (g)  
 CC infections caused by bacteria, viruses and fungi; and (h) ocular  
 CC disorders e.g. corneal infection. The polypeptides can also be used to  
 CC aid wound healing and epithelial cell proliferation, to prevent skin  
 CC aging due to sunburn, to maintain organs before transplantation, for  
 CC supporting cell culture of primary tissues, to regenerate tissues and in  
 CC chemotaxis.  
 CC  
 XX Sequence 311 AA:  
 SO  
 Query Match 100.0%; Score 1637; DB 21; Length 311;  
 Best Local Similarity 100.0%; Pred. No. 1.2e-133;  
 Matches 310; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 MAARRPRRLCARLPDFLLILFRGLICAVNLKSSNRPPVVOEFSVELSLITDSQT 60  
 DB 1 MATIRPRILCARLPDFILILFRGLIGAVNLKSSNRPPVVOEFSVELSLITDSQT 60  
 QY 61 SDRIEKKIKDQOTYVFEDNKIOGLAGRAETIGKSLIKIWNVTRDADLYRCEVVAR 120  
 DB 61 SDRIEKKIKDQOTYVFEDNKIOGLAGRAETIGKSLIKIWNVTRDADLYRCEVVAR 120  
 QY 121 NDRKEIDVIELTVQKPYTPVCRAVPKAVPGKMATLHCQESGHPRPHYSWRNDVPL 180

DB 121 NDRKEIDVIELTVQKPYTPVCRAVPKAVPGKMATLHCQESGHPRPHYSWRNDVPL 180  
 QY 181 PTDSRANPRFRNSFHLNSETGTLVFAVHKDDSGCYCYIASNDAGSARCEDEMEVEYDL 240  
 DB 181 PTDSRANPRFRNSFHLNSETGTLVFAVHKDDSGCYCYIASNDAGSARCEDEMEVEYDL 240  
 QY 241 NIGGIIGVLVLAVALITFLGICAVRRGYFINNKODGESYKNGKPDGVNIRFDEEG 300  
 DB 241 NIGGIIGVLVLAVALITFLGICAVRRGYFINNKODGESYKNGKPDGVNIRFDEEG 300  
 QY 301 DFRKSSFVI 310  
 DB 301 DFRKSSFVI 310  
 DB 301 DFRKSSFVI 310  
 RESULT 10  
 AAB38384  
 ID AAB38384 standard; Protein; 311 AA.  
 AC AAB38384;  
 DT 31-JAN-2001 (first entry)  
 XX  
 XX Human secreted protein encoded by gene 13 clone HAPSA79.  
 XX  
 XX Immunosuppressive; antiarthritic; antirheumatic; antiproliferative;  
 XX KM cytostatic; cardiant; vasotropic; cerebroprotective; neuroprotective;  
 XX KM nontropic; antibacterial; virucide; fungicide; ophthalmological; human;  
 XX KM vulnerable; gene therapy; infection; secreted protein.  
 XX  
 XX Homo sapiens.  
 OS  
 XX  
 XX MO200061623-A1.  
 XX  
 XX 19-OCT-2000.  
 XX  
 XX 06-APR-2000; 2000MO-US08979.  
 XX  
 XX 09-APR-1999; 99US-0128693.  
 XX 26-APR-1999; 99US-0130991.  
 XX  
 XX (HUMA-) HUMAN GENOME SCI INC.  
 PA  
 XX Ruben SM, Ni J, Komatsoulis GA, Rosen CA, Soppet DR, Shi Y;  
 PI Lafleur DM, Olsen HS, Ebner R, Florence KA, Moore PA, Birse CE;  
 PI Young PE;  
 PI  
 XX MPI: 2000-647418/62.  
 XX  
 XX New nucleic acid molecules encoding 62 human secreted proteins for  
 PT diagnosing, preventing, treating or ameliorating medical conditions and  
 PT used as food additives or preservatives -  
 PT  
 XX  
 XX Claim 11: Page 643-644; 716pp; English.  
 XX  
 XX Sequences AAB38321-B38396 represent the amino acid sequences of 62  
 CC human secreted proteins encoded by the genes AAC69512-C69587. The genes  
 CC and proteins are useful for preventing, ameliorating or treating medical  
 CC conditions, e.g. by protein or gene therapy. The genes are isolated from  
 CC a range of human tissues disclosed in the specification. The nucleic  
 CC acids, proteins, antibodies and (ant)agonists are useful in the  
 CC diagnosis, treatment and prevention of: (a) autoimmune diseases e.g.  
 CC rheumatoid arthritis; (b) hyperproliferative disorders e.g. neoplasms  
 CC of the breast or liver; (c) cardiovascular disorders e.g. cardiac  
 CC arrest; (d) cerebrovascular disorders e.g. cerebral ischemia; (e)  
 CC angiogenesis; (f) nervous system disorders e.g. Alzheimer's disease; (g)  
 CC infections caused by bacteria, viruses and fungi; and (h) ocular  
 CC disorders e.g. corneal infection. The polypeptides can also be used to  
 CC aid wound healing and epithelial cell proliferation, to prevent skin  
 CC aging due to sunburn, to maintain organs before transplantation, for  
 CC supporting cell culture of primary tissues, to regenerate tissues and in  
 CC chemotaxis.

XX Sequence 311 AA;

Query Match 100.0%; Score 1637; DB 21; Length 311;  
Best Local Similarity 100.0%; Pred. No. 1.2e-133;  
Matches 310; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MALRRPRLRLCARLPDFELLFRGCLIGAVNLKSNRTPVQEFESVELSCITDSQT 60  
DB 1 malrrprrlrlcarlpdffllllfrgcllgavnlksnrtpvqgefesvelscitdsqt 60  
QY 61 SDPRIEMKKIODEQTTTYFEDNKGIOGDLAGRAELIGKTSIKIMVTRDSALYRCEVAR 120  
DB 61 sdprlwmkklgdeqcttyffdklqgdlaqraellgktsikimvtrdsalyrcevar 120  
QY 121 NDRKEIDEIVIELTVQVPRVPCVRAVPVGMATLHCQSEGHPRHYSWYRNDVPL 180  
DB 121 ndrkeideivieltvqvpvrpcvcpvkaavpvgkmatlhcqseghprphyswyrndvpl 180  
QY 181 PDSRANPRFRNSSFHLNSETGLVFTAVHKDSCGYCIASNDGASARCEQEMEYDL 240  
DB 181 pdsranprfrnssfhltnsetglvftavhkddsgcyyciasndgsarceeqemeydl 240  
QY 241 NIGGIIGVLYLVAVLALITLIGICAYRRGRYFINNKQDESYKPKGPDGVNIRTDEEG 300  
DB 241 niggiigvlylvavlaaltlilgicayrrgyfinnkqdesyknpgkpdgvnyirtdeeg 300  
QY 301 DFRHKSFPVI 310  
DB 301 dfrhksfvi 310

## RESULT 11

ID AAB80431 standard: peptide; 339 AA.

XX AAB80431;

DT 24-APR-2001 (first entry)

XX Gene #13 associated peptide #1.

XX Secreted protein; human; autoimmune; hyperproliferation;

XX cardiovascular; cerebrovascular; infection; food.

XX Homo sapiens.

XX P0200107459-A1.

PD 01-FEB-2001.

PE 10-JUL-2000; 2000WO-US19735.

PR 23-JUL-1999; 99US-0145220.

PA (HUMA-) HUMAN GENOME SCI INC.

PI Rosen CA, Ruben SM, Ehner R, Duan RD, Ni J, Soppet DR, Moore PA;

PI Shi Y, Lafleur DW, Olsen HS, Birse CE, Komatsu S, GA;

DR WPI; 2001-123261/13.

PT New isolated nucleic acid encoding 29 secreted proteins, for  
PT diagnosing, preventing and treating e.g. autoimmune,  
PT hyperproliferative, cardiovascular, and ocular diseases or disorders  
PT and microorganism infections

PS Disclosure; Page 75; 601pp; English.

CC The present invention relates to 29 human secreted proteins. The  
CC invention is used to prevent autoimmune diseases e.g. rheumatoid  
CC arthritis, hyperproliferative disorders e.g. neoplasms of the

CC breast or liver, cardiovascular disorders e.g. cardiac arrest,  
CC cerebrovascular disorders e.g. cerebral ischemia, angiodenesis,  
CC nervous system disorders e.g. Alzheimer's disease, infections  
CC caused by bacteria, viruses and fungi and ocular disorders e.g.  
CC corneal infection. Also used in food preparations.

XX Sequence 339 AA;

Query Match 100.0%; Score 1637; DB 22; Length 339;  
Best Local Similarity 100.0%; Pred. No. 1.4e-133;  
Matches 310; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MALRRPRLRLCARLPDFELLFRGCLIGAVNLKSNRTPVQEFESVELSCITDSQT 60  
DB 30 malrrprrlrlcarlpdffllllfrgcllgavnlksnrtpvqgefesvelscitdsqt 89  
QY 61 SDPRIEMKKIODEQTTTYFEDNKGIOGDLAGRAELIGKTSIKIMVTRDSALYRCEVAR 120  
DB 61 sdprlwmkklgdeqcttyffdklqgdlaqraellgktsikimvtrdsalyrcevar 149  
QY 121 NDRKEIDEIVIELTVQVPRVPCVRAVPVGMATLHCQSEGHPRHYSWYRNDVPL 180  
DB 121 ndrkeideivieltvqvpvrpcvcpvkaavpvgkmatlhcqseghprphyswyrndvpl 209  
QY 181 PDSRANPRFRNSSFHLNSETGLVFTAVHKDSCGYCIASNDGASARCEQEMEYDL 240  
DB 181 pdsranprfrnssfhltnsetglvftavhkddsgcyyciasndgsarceeqemeydl 269  
QY 241 NIGGIIGVLYLVAVLALITLIGICAYRRGRYFINNKQDESYKPKGPDGVNIRTDEEG 300  
DB 241 niggiigvlylvavlaaltlilgicayrrgyfinnkqdesyknpgkpdgvnyirtdeeg 329  
QY 301 DFRHKSFPVI 310  
DB 330 dfrhksfvi 339

## RESULT 12

ID AAY96294 standard: protein; 310 AA.

XX AAY96294;

DT 16-AUG-2000 (first entry)

XX Human IGFAM-6 immunoglobulin.

XX Human; immunoglobulin; IGFAM-6; IGFAM; immune disorder; cancer;

XX infection; inflammation; haematopoiesis; AIDS; allergy.

XX Homo sapiens.

EH Key Location/Qualifiers

FT Peptide 1..30

FT Protein /label= signal\_peptide 31..310

FT Domain /label= IGFAM-6 46..117

FT Domain /label= Ig\_domain 153..221

FT Domain /label= Ig\_domain 238..260

FT Domain /label= transmembrane\_domain

PN WO200029583-A2.

PD 25-MAY-2000.

PF 19-NOV-1999; 99WO-US27566.

PR 19-NOV-1998; 99US-0113635.

PR 22-DEC-1998; 98US-0113635.

PR 07-APR-1999; 9905-0128194.  
XX  
PA (INCY-) INCYTE PHARM INC.  
XX  
PI Yue H, Tang YF, Corley NC, Guegler KJ, Gorgone GA, Baughn MR.  
PI Lu DM, Lai P, Hillman JL, Yang J;  
DR WPI: 2000-387796/33.  
DR N-PSDB; AAA27386.  
XX  
PT Immunoglobulin superfamily proteins, the agonist and antagonist of the  
PT protein is useful for preventing and treating disorders associated with  
PT altered levels of the protein such as cancer, immune system disorders  
PT  
XX  
XX  
PS Claim 1; Page 82-83; 105pp; English.  
XX  
CC The present sequence is the human immunoglobulin superfamily protein  
CC IGFAM-6. Its gene was isolated from a cDNA library of leg  
CC tissue. It is expressed in reproductive, nervous and  
CC cardiovascular tissue, where cancer and inflammation are common. The  
CC gene, protein, its antibodies, agonists and antagonists are suitable for  
CC diagnosing and treating many diseases, including cancer, immune system  
CC disorders (such as inflammation, AIDS, allergies, anaemia,  
CC arteriosclerosis, asthma, atherosclerosis, cholecystitis, Crohn's  
CC disease, diabetes mellitus, emphysema, Graves' disease, hepatitis,  
CC multiple sclerosis, psoriasis, rheumatoid arthritis, scleroderma,  
CC systemic lupus erythematosus and ulcerative colitis), complications of  
CC cancer, haemodialysis and extracorporeal circulation, trauma and  
CC haematopoietic cancer (such as leukaemia) and infections caused by  
CC bacteria, viruses, fungi or parasites.  
XX  
XX  
SQ Sequence 310 AA:  
XX  
XX  
Query Match 99.5%; Score 1629; DB 21; Length 310;  
Best Local Similarity 99.7%; Pred. No. 6.1e-133;  
Matches 309; Conservative 0; Mismatches 1; Indels 0; Gaps 0;  
XX  
D 1 MAIRRRPRLICARLPPEFILLFRGLIGAVNLKSSNRPVVOEFSEVSLCITTSQT 60  
DB 1 MAIRRRPRLICARLPPEFILLFRGLIGAVNLKSSNRPVVOEFSEVSLCITTSQT 60  
XX  
QY 61 SDPRIEWKKIQDEQTVVFPDNKIOGLAGRAEILGKTSKIMWTRRDSALYRCEVVAR 120  
D 61 SDPRIEWKKIQDEQTVVFPDNKIOGLAGRAEILGKTSKIMWTRRDSALYRCEVVAR 120  
XX  
QY 121 NDRKEIDELVIELTVQVYPVPCRPKAVPVGMATLHCQESGHPRHYSWRNDVPL 180  
D 121 NDRKEIDELVIELTVQVYPVPCRPKAVPVGMATLHCQESGHPRHYSWRNDVPL 180  
XX  
QY 181 PTPSRANPRRNSPFIHNSFTGLVFAVHKDDSGOYYCAJASNDAGSARCEDEMEVYDL 240  
DB 181 PTPSRANPRRNSPFIHNSFTGLVFAVHKDDSGOYYCAJASNDAGSARCEDEMEVYDL 240  
XX  
QY 241 NIGGIIGVLVLAVALITLIGICAVRRGYFTNNKODGESYKNPKRPGDVNVTFTDEEG 300  
DB 241 NIGGIIGVLVLAVALITLIGICAVRRGYFTNNKODGESYKNPKRPGDVNVTFTDEEG 300  
XX  
QY 301 DFRHKSFTV 310  
DB 301 DFRHKSFTV 310  
XX  
XX  
DE Human secreted protein sequence encoded by gene 15 SEQ ID NO:134.

XX  
KW Human; secreted protein; immunosuppressive; antiarthritic; antirheumatic;  
KW antiproliferative; cytoskeletal; cardiant; vasotropic; cerebroprotective;  
KW neurotrophic; neuroprotective; antibacterial; virucide; fungicide; neoplasm;  
KW ophthalmological; autoimmune disease; rheumatoid arthritis; angioneuromatosis;  
KW hyperproliferative disorder; cardiovascular disorder; infection;  
KW cerebrovascular disorder; nervous system disorder; ocular disorder;  
KW wound healing; chemotaxis.  
XX  
XX Homo sapiens.  
XX  
XX WO200056754-A1.  
XX  
XX 28-SEP-2000.  
XX  
XX 16-MAR-2000; 2000MO-US06792.  
XX  
XX 19-MAR-1999; 9905-0125362.  
XX 10-DEC-1999; 9905-0169980.  
XX  
XX (HUMA-) HUMAN GENOME SCI INC.  
XX  
XX Rosen GA, Ruben SM, Komatsoulis G;  
XX WPI: 2000-579483/54.  
XX N-PSDB; AAC74237.  
XX  
XX Isolated nucleic acid molecule encoding a human secreted protein is  
XX used in preventing, treating or ameliorating a medical condition -  
XX  
XX Disclosure; Page 32; 434pp; English.  
XX  
XX The polynucleotide sequences given in AAC74223-C74279 encode the human  
XX secreted proteins represented in AAB39179-B39226. Sequences  
XX AAB39227-B39308 are alternative proteins encoded by the genes, and also  
XX protein sequences with which they share homology. The proteins have  
XX activities based on the tissues and cells in which they are expressed.  
XX Examples of activities include: immunosuppressive; antiarthritic;  
XX antirheumatic; antiproliferative; cytoskeletal; cardiant; vasotropic;  
XX cerebroprotective; neurotrophic; neuroprotective; antibacterial; virucide;  
XX fungicide; and ophthalmological. The human secreted proteins,  
XX polynucleotides, antagonists and agonists of the invention may be useful  
XX in the treatment, prevention, and/or diagnosis of various disease,  
XX disorders and conditions such as autoimmune diseases e.g. rheumatoid  
XX arthritis, hyperproliferative disorders e.g. neoplasms of the breast or  
XX liver, cardiovascular disorders e.g. cardiac arrest, cerebrovascular  
XX disorders e.g. cerebral ischemia, angioneuromatosis, nervous system disorders  
XX e.g. Alzheimer's disease, infections caused by bacteria, viruses and  
XX fungi and ocular disorders e.g. corneal infection. The polypeptides can  
XX also be used to aid wound healing and epithelial cell proliferation, to  
XX regenerate tissues, maintain organs before transplantation, in  
XX chemotaxis and as a food additive or preservative e.g. to increase  
XX storage capabilities. Sequences AAC74214-C74222 and AAB39178 are used  
XX during the isolation and characterisation of the genes of the invention.  
XX  
XX  
XX Sequence 285 AA:  
XX  
XX  
Query Match 91.5%; Score 1498; DB 21; Length 285;  
Best Local Similarity 99.3%; Pred. No. 1.1e-121;  
Matches 283; Conservative 0; Mismatches 2; Indels 0; Gaps 0;  
XX  
QY 26 GCLIGAVNLKSSNRPVVOEFSEVSLCITTSQTSQSPRIEMKKIODEQTVVFPDNKIQ 85  
DB 1 GCLIGAVNLKSSNRPVVOEFSEVSLCITTSQTSQSPRIEMKKIQDEQTVVFPDNKIQ 85  
XX  
QY 86 GDLAGRAEILGKTSKIMWTRRDSALYRCEVVARNDKREIDELVIELTVQVYPVPCRP 145  
DB 61 GDLAGRAEILGKTSKIMWTRRDSALYRCEVVARNDKREIDELVIELTVQVYPVPCRP 120  
XX  
QY 146 VPKAVPVGMATLHCQESGHPRHYSWRNDVPLPTDSANPRFRNSPFIHNSFTGLV 205  
DB 121 VPKAVPVGMATLHCQESGHPRHYSWRNDVPLPTDSANPRFRNSPFIHNSFTGLV 180



Db 121 ndrkerdeltielivgvkvtvpcrlpaavpygkatalqcesesgyprphyswyrndvpl 180  
QY 181 PTDSRANPRFRNSSFHLNSETGTLVFTAVHKDDSGOYYCIAINDAGSARCEOEEMEYIDL 240  
Db 181 ptdsransprfqnsfhnsetgclvfnavhkddsgqyyciasndagaarceqgdmeydl 240  
QY 241 NIGGIIIGVLYVAVLALITLGICCAVRRGYFINNKODGESYKPNPKPGCVNTRIRDEEG 300  
Db 241 nlagli9vlyvllvllavltmglcayrrgcflsskqdgesykpgkhdgvnyiltseeg 300  
QY 301 DFRKSSFYI 310  
Db 301 dfthksfvl 310

Search completed: August 6, 2001, 09:33:06  
Job time: 217 sec

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PT New isolated nucleic acid for producing a PRO polypeptide, analyzing  
 PT genetic disorders and treating cardiovascular, endothelial or  
 PT angiogenic disorders, such as atherosclerosis, wounds or cancer -  
 PS Claim 69; Fig 36; 293pp; English.

CC The invention relates to novel human angiogenesis-associated proteins  
 CC designated PRO proteins (AA53064-B53097), and to nucleic acids encoding  
 CC PRO proteins. The invention also relates to vectors and host cells  
 CC comprising a PRO nucleic acid, the recombinant production of a PRO  
 CC protein, PRO antibodies specific for a PRO protein, fusion proteins  
 CC comprising a PRO protein, agonists or antagonists of a PRO protein, and  
 CC compounds which inhibit the expression of a PRO gene. The invention  
 CC additionally encompasses methods of identifying modulators of PRO  
 CC expression or activity; diagnosing a cardiovascular, endothelial or  
 CC angiogenic disorder, or a susceptibility to such a disorder by detecting  
 CC mutations in a PRO gene, or the expression level of a PRO gene within a  
 CC particular tissue; treating a cardiovascular, endothelial or angiogenic  
 CC disorder via the administration of a PRO protein, PRO nucleic acid, or  
 CC PRO agonist or antagonist; a retroviral gene therapy vector comprising a  
 CC PRO nucleic acid; and methods of inhibiting or stimulating endothelial  
 CC cell growth, cardiac hypertrophy or PRO-induced angiogenesis via the  
 CC administration of a PRO protein, or an agonist or antagonist thereof.  
 CC PRO nucleic acids, PRO proteins, antibodies against PRO proteins, PRO  
 CC agonists and PRO antagonists may be used as therapeutic agents to treat  
 CC cardiovascular, endothelial or angiogenic disorders, such as  
 CC atherosclerosis, osteoporosis, myocardial infarction, hypertension,  
 CC diabetic retinopathy, rheumatoid arthritis, Crohn's disease, psoriasis,  
 CC endometriosis, ulcers, wounds, cancer, Alzheimer's disease, Huntington's  
 CC disease, or stroke. PRO nucleic acids are additionally useful in the  
 CC recombinant production of PRO proteins, as hybridisation probes to  
 CC screen libraries to isolate cDNAs with sequence identity to PRO proteins,  
 CC to map genes encoding PRO proteins, to analyse genetic disorders, and in  
 CC gene therapy. PRO nucleic acids can also be used to produce transgenic  
 CC animals useful for the development and screening of potential  
 CC therapeutic agents. The present sequence represents a PRO protein of the  
 CC invention.

CC Sequence 312 AA:

Query Match 28.2%; Score 461.5; DB 22; Length 312;  
 Best Local Similarity 37.1%; Pred. No. 5e-32;

Matches 104; Conservative 52; Mismatches 103; Indels 21; Gaps 7;

QY 1 MALRRPRRLRLCARLPDFFLLFRGCLG----AVNLSKSNRRPVPVQ--EFESVELSC 53  
 DB 1 maristrhl-----lllllylvalyghkaygsapdkqgvaveygeallac 50  
 OY 54 ITDSDTPRIEMKKIODEQTTVFFDNKIOGDLGRAEIKGKTSLSKTMWTRRDSALY 113  
 DB 51 -ktpkktvsrlewkl-gsvsfvygqqltqgdfknreml-dftrtknvtlrsdaqy 107  
 QY 114 KCEVVARNDK-KEIDEIVIELTVQVKPVTPVCGRPKAPVGVKMATLHCQESGCHPRPHYS 172  
 DB 108 rcevaspseqgnleedvtclvlvavpavscpepsalslgvelrcqdgknppeytc 167  
 QY 173 WRBNVPLPTDSRANPRFNSSPHLNSERTGLVFAVHDDSGOYCIASNDGASRCEE 232  
 DB 168 wtkdgrtllleprlsgqsnssytmctkgtlqfntvsldtgeyscaearnsvgytrcpq 227  
 QY 233 QEMEYVDNLIGIGIVLVAVLALITLIGICAVARGFY 272  
 DB 228 krmgyddlnlsgllaavvalvlsvcgvgcydaqkyf 267

RESULT 29

AAV11472  
 ID AAV11472 standard; Protein: 89 AA.

AC AAV11472;  
 XX  
 DT 21-JUN-1999 (first entry)

XX Human 5' EST secreted protein SEQ ID No 294;  
 DE  
 XX

XX Human; secreted protein; EST; expressed sequence tag; diagnosis;  
 XX forensic; gene therapy; chromosome mapping; signal peptide;  
 XX upstream regulatory sequence; cytokine activity; cell proliferation;  
 XX differentiation; haematopoiesis; regulation; tissue growth regulation;  
 XX reproductive hormone regulation; chemotactic; chemokinetic; haemostatic;  
 XX thrombolytic; anti-inflammatory; tumour inhibition.

OS Homo sapiens.

PN WO9906551-A2.

PD 11-FEB-1999.

PF 31-JUL-1998; 98WO-1B01235.

PR 01-AUG-1997; 97US-0905133.

PA (GEST) GENSET.

PI Duclert A, Dumas Mline Edwards J, Lacroix B;

DR WPI: 1999-153781/13.

DR N-PSDB; AAX39538.

PT New nucleic acids encoding human secreted - proteins obtained from  
 PT cDNA libraries prepared from substantia nigra, cerebellum, surrenals  
 PT and fetal brain tissue

PS Claim 34; Page 394; 434pp; English.

CC AAX39440 to AAX39597 represent 5' expressed sequence tags (ESTs) for  
 CC human secreted proteins, and encode the proteins given in AAY11374 to  
 CC AAY11531, respectively. The proteins given represent the signal peptide  
 CC and an N-terminal fragment of a secreted protein. The nucleic acid  
 CC sequences can be used for producing secreted human gene products. They  
 CC can also be used to develop products for diagnosis and therapy. The  
 CC proteins obtained may have cytokine activity, cell  
 CC proliferation/differentiation activity, haematopoiesis regulating  
 CC activity, tissue growth regulating activity, reproductive hormone  
 CC regulatory activity, chemotactic/chemokinetic activity, haemostatic and  
 CC thrombolytic activity, receptor/ligand activity, anti-inflammatory  
 CC activity, tumour inhibition activity or other activities. The products  
 CC can be used in forensic, gene therapy and chromosome mapping procedures.  
 CC The sequences can also be used for obtaining corresponding promoter  
 CC sequences. The nucleic acids encoding the signal peptide can be used for  
 CC directing extracellular secretion of a polypeptide or the insertion of a  
 CC polypeptide into a membrane, or importing a polypeptide into a cell.

CC Sequence 89 AA:

Query Match 28.1%; Score 460; DB 20; Length 89;  
 Best Local Similarity 100.0%; Pred. No. 1.3e-32;  
 Matches 89; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MALRRPRRLRLCARLPDFFLLFRGCLGAVNLSKSNRRPVPVQEFESVELSCITDTSOT 60  
 DB 1 malrrprlrlcarlpdfffflllfrgcllgavnlssnrrtpvvgqfscvslscltdtsqt 60  
 QY 61 SDPRIEMKKIODEQTTVFFDNKIOGDLA 89  
 DB 61 sdprlwmkkidqegtltyvffdnkigdl 89

RESULT 30

AAW61380  
 ID AAW61380 standard; Protein: 300 AA.

AC AAW61380;  
 XX  
 XX

XX 24-APR-2001 (first entry)  
 DT  
 XX  
 DE Human PRO245 protein.  
 KW Human: PRO: dermatological; antipsoriatic; cytostatic; antiinflammatory;  
 KW antiparkinsonian nootropic; neuroprotective; vulnerary; cardiant;  
 KW antiangiogenic; vasotropic; antiaesthetic; antirheumatic; cancer;  
 KW antiarthritic; antifertility; antidiabetic; antiviral; diabetes;  
 KW ophthalmological; gene therapy; skin disease; gastrointestinal disorder;  
 KW ischaemia; inflammation.  
 XX  
 OS Homo sapiens.  
 PN WO200104311-A1.  
 PD  
 XX 18-JAN-2001.  
 PF 22-FEB-2000; 2000MO-US04414.  
 XX  
 XX JUL-1999; 99US-0143048.  
 PR JUL-1999; 99US-0145698.  
 PR 28-JUL-1999; 99US-0146222.  
 PR 08-SEP-1999; 99MO-US20594.  
 PR 13-SEP-1999; 99MO-US20944.  
 PR 15-SEP-1999; 99MO-US21090.  
 PR 15-SEP-1999; 99MO-US21547.  
 PR 05-OCT-1999; 99MO-US23089.  
 PR 29-NOV-1999; 99MO-US28214.  
 PR 30-NOV-1999; 99MO-US30095.  
 PR 16-DEC-1999; 99MO-US30911.  
 PR 20-DEC-1999; 99MO-US30999.  
 PR 20-DEC-1999; 99MO-US30999.  
 PR 05-JAN-2000; 99MO-US00219.  
 XX  
 PA (GETH ) GENENTECH INC.  
 PI Ashkenazi AJ, Botstein D, Desnoyers L, Eaton DL, Ferrara N;  
 PI Filvaroff E, Fong W, Gerber H, Gerritsen ME, Goddard A;  
 PI Godowski PJ, Grimaldi CJ, Gurney AL, Hillan KJ, Kijavita IO;  
 PI Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D;  
 PI Williams PM, Wood WI;  
 DR WPI: 2001-081051/09.  
 DR N-PSDB: AAF72383.  
 XX  
 PT Sixty one nucleic acids encoding PRO polypeptides which are useful in  
 PT the treatment of skin diseases (e.g. psoriasis), cancers (e.g. lung  
 PT famous cell carcinoma) and neurodegenerative diseases (e.g.  
 PT Alzheimer's disease) -  
 XX  
 XX Claim 1, Fig 24; 393pp; English.  
 XX  
 CC The present sequence is one of sixty one novel secreted and  
 CC transmembrane PRO polypeptides. The PRO polypeptides are  
 CC useful for treating skin diseases (e.g. psoriasis), cancers (e.g. lung  
 CC squamous cell carcinoma), gastrointestinal disorders (e.g.  
 CC enterocolitis), neurodegenerative diseases (e.g. Alzheimer's disease,  
 CC Parkinson's disease), wound repair, cardiovascular disorders (e.g.  
 CC endometrial bleeding angiogenesis, ischaemias such as coronary  
 CC ischaemia, atherosclerosis), inflammatory disorders (e.g. asthma,  
 CC rheumatoid arthritis, multiple sclerosis), infertility, AIDS and  
 CC diabetes and retinal disorders such as retinitis pigmentosa.  
 CC The PRO nucleic acids have applications in molecular biology, including  
 CC use as hybridization probes, and in chromosome and gene mapping.  
 CC  
 CC Sequence 312 AA:  
 XX

QY 1 MALRRPRRLRLCARLPDFLLFRGLG-----AVNIKSSNRFPVQ--EFSEVELSC 53  
 DB 1 marrrrrhl-----lllllrrylvalgyhkaygisapxqdgvtvtaeygaallac 50  
 QY 54 IITDSQTSDPRIEMKKIODEQTYVPFDNKIOGLAGRAEILGKTSKIMVTRDSALY 113  
 DB 51 -tkpkrvsnrlwkkll-grsvsfyygqlqgdfknraemi-dfnirtknvtresdaqky 107  
 QY 114 RCEVAVANR-KEIDEIVIELTVQVKPVPVCRVPRKAVVGVGMATLHOESGHPRPYS 172  
 DB 108 rcevasapsegqnlbedvltlevlvaavpscevpssalsgtvvelrcqdkgnpapeyt 167  
 QY 173 WYRNDVPLPTDSRAMPFRFNSSFEHLNSETGLVFTVAHKSQGYQYCIASNDGASRCEE 232  
 DB 168 wfkdgirllleprlgsqsnssytmntkrglqfnltvskldtgeyscearnsvgyrrpog 227  
 QY 233 QEMEVYDLNIGGILGCVLVAVLALITLGICAVRGIE 272  
 DB 228 krmqvddlnlsgllaaavvvalvsvcglygcyaqkygf 267  
 XX  
 RESULT 28  
 AAB53081  
 ID AAB53081 standard; Protein; 312 AA.  
 XX  
 AC AAB53081;  
 XX  
 DT 28-FEB-2001 (first entry)  
 XX  
 DE Human angiogenesis-associated protein PRO245, SEQ ID NO:91.  
 XX  
 KW Human; angiogenesis-associated protein; PRO: endothelial cell growth;  
 KW cardiac hypertrophy; cardiovascular disorder; osteoporosis; hypertension;  
 KW angiogenic disorder; atherosclerosis; hyperostosis; hyperostosis;  
 KW myocardial infarction; diabetic retinopathy; rheumatoid arthritis;  
 KW Crohn's disease; psoriasis; endometrial disease; ulcer; wound healing; cancer;  
 KW Alzheimer's disease; Huntington's disease; stroke; drug screening;  
 KW gene therapy; transgenic animal.  
 XX  
 OS Homo sapiens.  
 PN WO200053753-A2.  
 PD 14-SEP-2000.  
 PF 05-JAN-2000; 2000MO-US00219.  
 XX  
 XX 08-MAR-1999; 99MO-US05028.  
 PR 12-MAR-1999; 99US-0123957.  
 PR 14-MAY-1999; 99US-0134287.  
 PR 02-JUN-1999; 99MO-US12252.  
 PR 23-JUN-1999; 99US-0141037.  
 PR 20-JUL-1999; 99US-0144758.  
 PR 26-JUL-1999; 99US-0145698.  
 PR 01-SEP-1999; 99MO-US20111.  
 PR 08-SEP-1999; 99MO-US20594.  
 PR 15-SEP-1999; 99MO-US21090.  
 PR 15-SEP-1999; 99MO-US21547.  
 PR 05-OCT-1999; 99MO-US23089.  
 PR 30-NOV-1999; 99MO-US28313.  
 PR 30-NOV-1999; 99MO-US28409.  
 PR 02-DEC-1999; 99MO-US28564.  
 PR 02-DEC-1999; 99MO-US28565.  
 XX  
 PA (GETH ) GENENTECH INC.  
 PI Ashkenazi AJ, Baker KP, Ferrara N, Gerber H, Goddard A;  
 PI Godowski PJ, Gurney AL, Hillan KJ, Kuo SS, Mark MR, Marsters SA;  
 PI Paoni NF, Pitti RM, Watanabe CK, Williams PM, Wood WI;  
 DR WPI: 2001-090793/10.  
 DR N-PSDB: AAC97437.  
 XX

Query Match 28.2%; Score 461.5; DB 22; Length 312;  
 Best local Similarity 37.1%; Pred. No. 5e-32;  
 Matches 104; Conservative 52; Mismatches 103; Indels 21; Gaps 7;





[illegible]

```
Query Match          29.8%; Score 488; DB 1; Length 298;
Best Local Similarity 36.2%; Pred. No. 1.4e-34;
Matches 115; Conservative 60; Mismatches 115; Indels 28; Gaps 10;

QY 1 MALRRPRLRCARLPDFLLFRGLG-----AVLKSSNRPVVO--EFESVELSC 53
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 1 MARRSRRL-----LLLLLYLVVALGYHKAYGFSAPKQOVVTAVEYQAILAC 50
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 54 IITDSQTSDPRIEKKIODEQTTVFFDNKIQGLDAGRAELGKTSKINWTRDSALY 113
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 51 *KTPKKTVSSRLWKKL-GRSVFYYIQQTLQGDGPKNAEMI-DFNIRIKNVTSDAGKY 107
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 114 RCEVVARNDR-KEIDEIVIELTVQVKPTVPCRVKAPVGMATLHCOESEGHPHYS 172
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 108 RCEVSAPSEQGNLEEDIVTVLVAPVPSCEVPSSALSGTVVRELQDREGNPAPY 167
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 173 WYRNDVPLPTDSRANPRFNSFHLNSETGLVFTAVHKDSDGYCYCIASNDAGSARCE 232
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 168 WFKDGIIRLENPRLGQSQTNSSTYNTKTLQFNTVSKLDTGEYSCEARNVGYRCPG 227
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 233 QMEVYDNLIGIIGVWLVALVLAITLIGTCACVRRGYFNNKODGESYKNPKPDGVN 292
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 228 KRMQVDDNLISGIIAAVVVVALVISVCGLVGYAQRKGYF--SKE--TSFQ---KSNSS 280
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 293 YIRTEDEGDFRHKSSFVI 310
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 281 KATTMSENDFRHKSFII 298
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

RESULT 2
JAM1_MOUSE
ID JAM1_MOUSE STANDARD; PRT; 300 AA.
AC O88792;
DT 01-OCT-2000 (Rel. 40, Created)
DT 01-OCT-2000 (Rel. 40, Last sequence update)
DT 01-OCT-2000 (Rel. 40, Last annotation update)
DE JUNCTIONAL ADHESION MOLECULE PRECURSOR (JAM).
GN JAM OR JAM1.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=98327120; PubMed=9660867;
RA Martin-Padura I., Lostaglio S., Schneemann M., Williams L., Romano M.,
RA Fruscella P., Panzeri C., Stoppacciaro A., Ruco L., Villa A.,
RA Simmons D., Dejana E.;
RT "Junctional adhesion molecule, a novel member of the immunoglobulin
RT superfamily that distributes at intercellular junctions and modulates
RT monocyte transmigration.";
RL J. Cell Biol. 142:117-127(1998).
CC -!- FUNCTION: PLAYS A ROLE IN REGULATING MONOCYTE TRANSMIGRATION
CC INVOLVED IN INTEGRITY OF EPITHELIAL BARRIER. INVOLVED IN PLATELET
CC ACTIVATION.
CC -!- SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN (POTENTIAL).
CC -!- TISSUE SPECIFICITY: LOCALIZED AT TIGHT JUNCTIONS OF BOTH
CC EPITHELIAL AND ENDOTHELIAL CELLS.
CC -!- SIMILARITY: CONTAINS 2 IMMUNOGLOBULIN-LIKE V-TYPE DOMAINS.
CC -----
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation.
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
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CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC -----
Db EMBL; U89915; AAC32982.1; -
DR MGQ; MGI:1321398; Jcam.
DR InrerPro; IPR003006; -
```



```

Query Match      29.7%; Score 486.5; DB 11; Length 298;
Best Local Similarity 36.7%; Pred. No. 9.3e-39;
Matches 114; Conservative 54; Mismatches 116; Indels 27; Gaps 9;

QY   13 ARLPDFFLLLRGLGIGAVNKLKSN-----RTPVVOEFSVELSCIITDSQTSDP 63
     ||| ||| ||| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :|
Db   2 ARSQGLMLLMLLHYLVADYHKGANGSASKHRQEVTVEFQAILAC-KTPKKTTSS 60

QY   64 RIEWKKIODEQTVTFVPDNKTQGLAGRAELTGKTSLKINWTRDRDSLALYCEVVARNDR 123
     ||||| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :|
Db   61 RLEWKVV-GGGVSILVYYQQALQGDFKORAEMI-DFNIRKNWTRSDAGEYCEVSAPTEQ 118

QY   124 -KEIDEIVIELTVOVKPPTPCVRYPKAPVPCGMATLHCQSEGHPRPHYSWNRNDVPLPT 182
     :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :|
Db   119 GONQLQDKVMLEVLVAFAVPACEVPTSVMTGSVVVELRCQDEKGNPAGEYIWFKDG---T 174

QY   183 DSRANRP---FRNSSFHLSNTGTTLVFATAVHKDSSGYGYCTIASNDAGSARCEEEMEYVD 239
     ||| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :|
Db   175 SLLGNPKGGTHNNSSYTWNTKSGILQFNWISKMDSGEYCYEARNSVGHHRCPGKRMQVDV 234

QY   240 LNIIGGITGVLVLAVALIALITLGTCACVRRGYFINNKODGESYNKPKGDGVNYIRTDEE 299
     ||| ||| ||| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :| :|
Db   235 LNIGSIATVVAFAVSVGLGTCYAQRKYGF-----SKETSFOKQSP--ASKVTWMSE 287

```

RP SEQUENCE FROM N.A.  
 RA Liu Y., Nusrat A., Schnell F.J., Walsh S., Reaves T.A., Pochet M.,  
 RA Foley C., parkos C.A.;



GenCore version 4.5  
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## OM protein - protein search, using sw model

Run on: August 6, 2001, 09:33:36 ; Search time 19.31 Seconds  
(without alignments)  
330.554 Million cell updates/sec

Title: US-09-524-531a-15  
Perfect score: 1637  
Sequence: 1 MALRRPRLRLCARLPDFLL.....VNYRTDEGDFRHKSSFVI 310

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 197339 seqs, 20590346 residues

Total number of hits satisfying chosen parameters: 197339

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Issued Patents AA:\*  
1: /cgn2\_6/ptodata/1/1aa/5A-COMB.pep:\*  
2: /cgn2\_6/ptodata/1/1aa/5B-COMB.pep:\*  
3: /cgn2\_6/ptodata/1/1aa/6A-COMB.pep:\*  
4: /cgn2\_6/ptodata/1/1aa/6B-COMB.pep:\*  
5: /cgn2\_6/ptodata/1/1aa/PTCUS-COMB.pep:\*  
6: /cgn2\_6/ptodata/1/1aa/backfiles1.pep:\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	424	25.9	299	4	US-09-188-930-331
2	412	25.2	299	4	US-09-188-930-189
3	228.5	14.0	319	1	US-08-597-495B-22
4	169.5	10.4	390	2	US-08-979-424-1
5	160.5	9.8	365	4	US-08-928-383B-2
6	159.5	9.7	365	2	US-08-979-424-3
7	159.5	9.7	365	4	US-09-272-496-2
8	157.5	9.6	1101	3	US-08-986-485-2
9	155.5	9.5	612	2	US-08-752-307B-11
10	154	9.4	1501	2	US-08-447-464-3
11	154	9.4	1501	2	US-08-716-679-3
12	152.5	9.3	869	1	US-08-374-834-16
13	152.5	9.3	869	2	US-08-644-271-29
14	152	9.3	95	4	US-08-928-383B-18
15	150.5	9.2	698	2	US-08-602-725-36
16	150.5	9.2	734	2	US-08-389-459A-17
17	150.5	9.2	734	3	US-08-987-867A-17
18	147	9.0	365	4	US-08-928-383B-23
19	147	9.0	365	4	US-08-928-383B-24
20	146.5	8.9	315	2	US-08-414-657D-47
21	146.5	8.9	338	2	US-08-414-657D-42
22	146.5	8.9	338	2	US-08-414-657D-43
23	145.5	8.9	252	2	US-08-414-657D-57
24	145.5	8.9	287	2	US-08-414-657D-49
25	145.5	8.9	310	2	US-08-414-657D-45
26	145.5	8.9	338	2	US-08-414-657D-60
27	145.5	8.9	478	5	PCT-US95-08493-15

28	145.5	8.9	860	5	PCT-US95-08493-19	Sequence 19, Appl
29	145.5	8.9	868	5	PCT-US95-08493-21	Sequence 21, Appl
30	144.5	8.8	252	2	US-08-414-657D-56	Sequence 56, Appl
31	144.5	8.8	287	2	US-08-414-657D-48	Sequence 48, Appl
32	144.5	8.8	304	2	US-08-414-657D-44	Sequence 44, Appl
33	144.5	8.8	308	2	US-08-414-657D-46	Sequence 46, Appl
34	144.5	8.8	325	2	US-08-414-657D-41	Sequence 2, Appl
35	144.5	8.8	325	2	US-08-414-657D-41	Sequence 41, Appl
36	144	8.8	501	2	US-08-408-095-31	Sequence 31, Appl
37	143.5	8.8	868	1	US-08-374-834-1	Sequence 1, Appl
38	143.5	8.8	868	2	US-08-644-271-1	Sequence 1, Appl
39	143	8.7	642	1	US-08-217-299-1	Sequence 1, Appl
40	142	8.7	365	4	US-08-928-383B-26	Sequence 26, Appl
41	140.5	8.6	1241	4	US-09-040-774-2	Sequence 2, Appl
42	138.5	8.5	1447	4	US-09-041-886-25	Sequence 25, Appl
43	138.5	8.5	1447	5	PCT-US94-05277-2	Sequence 2, Appl
44	138	8.4	1091	3	US-08-986-485-5	Sequence 5, Appl
45	137	8.4	607	2	US-08-752-307B-12	Sequence 12, Appl

## ALIGNMENTS

RESULT 1  
US-09-188-930-331  
; Sequence 331, Application US/09188930A  
; Patent No. 6150502  
; GENERAL INFORMATION:  
; APPLICANT: Watson, James D.  
; APPLICANT: Strachan, Lorna  
; APPLICANT: Sleeman, Matthew  
; APPLICANT: Onrust, Rene  
; APPLICANT: Murlison, James Greg  
; TITLE OF INVENTION: Compositions Isolated From Skin Cells  
; TITLE OF INVENTION: and Methods For Their Use  
; FILE REFERENCE: 11000.1011c1  
; CURRENT APPLICATION NUMBER: US/09/188,930A  
; CURRENT FILING DATE: 1998-11-09  
; NUMBER OF SEQ ID NOS: 348  
; SOFTWARE: FastSeq for Windows Version 3.0  
; SEQ ID NO 331  
; LENGTH: 299  
; TYPE: PRT  
; ORGANISM: Human  
US-09-188-930-331

Query Match 25.9%; Score 424; DB 4; Length 299;  
Best Local Similarity 32.8%; Pred. No. 2.1e-35;  
Matches 101; Conservative 48; Mismatches 137; Indels 22; Gaps

QY	8	RRLCARLPDFLLFRGLIGAVNLKSSNRTPVVOEFESVELSCIIITDSOTSDPRIEW 67	
DB	9	RKLCL-FLAILLCLSLALGTVHSSEPEVRIPENPVKLSCAY--SGFSSPRVW 62	
QY	68	KKIQDEQTYVFFDNKIQGDLAGRAEILGKTSLKTNVTRDSALYRCVAVNRKREID 127	
DB	63	KFDQDGTTLVLCVNNKITASYEDRVTF-PTGITKFSVTREDTGTVC-MVSEEGNSYG 120	
QY	128	EIVIELTVQVKVTPVCRVPKAVPGKMATLHCQSEGHPRPHYSYRNDVPLPTDSRAN 187	
DB	121	EYVKLLVLVPKSPKPTVINIPSSATIGNRAVLTCSEODGPPSEYTFKDGIVNTPKST 180	
QY	188	PRFRSSFLHNSGTGLVFTAVHKDDSGOYCYIASNDAGSARCEQ-EMEVYDLNIGGI 246	
DB	181	RAFSNSSVYLVNPTTGLVDFDPLSASDTGEYSCEARNGYGTPTMSNAVRNVAERNGVIV 240	
QY	247	GGVLVLAVALITLIGICCAYRGYFINNKQDGE-----YKNPGKPDGVNYIRTBEGDF 302	
DB	241	AAVLVTLLGLVFGWFAYSRGHFDRTKTKTSSKKVIYSQPS-----ARSEGEF 291	
QY	303	RHKSSFVI 310	

Db 292 KQTSFLV 299

## RESULT 2

US-09-188-930-189  
; Sequence 189, Application US/09188930A

; Patent No. 6150502

; GENERAL INFORMATION:

; APPLICANT: Watson, James D.

; APPLICANT: Strachan, Lorna

; APPLICANT: Sleeman, Matthew

; APPLICANT: Onrust, Rene

; APPLICANT: Murison, James Greg

; TITLE OF INVENTION: Compositions Isolated From Skin Cells

; FILE REFERENCE: 11000.101cl

; CURRENT APPLICATION NUMBER: US/09/188, 930A

; CURRENT FILING DATE: 1998-11-09

; NUMBER OF SEQ ID NOS: 348

; SOFTWARE: FastSeq for Windows Version 3.0

; SEQ ID NO 189

; LENGTH: 299

; TYPE: PRI

; ORGANISM: Human

; FEATURE:

; NAME/KEY: UNSURE

; LOCATION: (247)....(247)

; NAME/KEY: UNSURE

; LOCATION: (289)....(289)

US-09-188-930-189

## Query Match

Best Local Similarity 32.1%; Score 412; DB 4; Length 299;

Matches 99; Conservative 48; Mismatches 139; Indels 22; Gaps 7;

Qy 8 RLRLCARLPDFLLLRGLGCLIGAVNLKSSNRTVPVQEFESVELSCIITDSQSDPRIEW 67

Db 9 KLLCL----FILAILLCSLALGVSIVHSSEPEVRIPENNPKLSLAY--SGFSSPRVEM 62

Qy 68 KKIODEQTYFFDNKTOGLDAGRAELIGKTSKINWTRDLSALYCEVVARNDREID 127

Db 63 KFDQGDTRLVCYNKNTASYEDRVTEL-PTGITFKSVTRDGTGTYC-MVSEEGNSYG 120

Qy 128 EIVTELTVQVAPVPCVRKXAVPVGKMATLHCQSEGHPRPHYSWYRNDVPLPTDSRAN 187

Db 121 EVKVLIVLPPSPKPTVNIPSSATIGNRAVLTCSEQDGPSPSEYTFKDGIVMTNPKST 180

Qy 188 PRFRNSSFHLNSETGLVFTAVHKDDSGQYCIASNDAGSARCEQ-EMEVYDLNIGII 246

Db 181 RAFNSSSVLNPPTTGELVDFPLSASDTGEYSCEARNGVGTPTMTSNAVMEAVERNVGVIV 240

Qy 247 GGVLVAVLALILGICCAVRYGFFNNKQDGES----YKNPKPGVNVIRTDGDF 302

Db 241 AAVLVXTILLGILVFWFAYSRGHFDRTKGTSSKKVIYSQPS-----ARSEXEF 291

Qy 303 RHKSSEVI 310

Db 292 KQTSFLV 299

## RESULT 3

US-08-597-495B-22

; Sequence 22, Application US/08597495B

; Patent No. 5712369

; GENERAL INFORMATION:

; APPLICANT: Old, Lloyd J.; Welt, Sydney; Ritter, Gerd;

; APPLICANT: Simpson, Richard J.; Nice, Edouard; Moritz, R. L.;

; APPLICANT: Catimel, B.; Ji, Hong; Burgess, Anthony W.;

; APPLICANT: Heath, Joan K.; White, Sara J.; Johnstone, Cameron

; TITLE OF INVENTION: Colon Cell and Colon Cancer Cell

; TITLE OF INVENTION: Associated Nucleic Acid Molecules, Protein And Peptides

; NUMBER OF SEQUENCES: 29

## CORRESPONDENCE ADDRESS:

ADDRESSEE: Felfe & Lynch

STREET: 805 Third Avenue

CITY: New York City

STATE: New York

COUNTRY: USA

ZIP: 10022

## COMPUTER READABLE FORM:

MEDIUM TYPE: Diskette, 3.5 inch, 360 kb storage

COMPUTER: IBM PS/2

OPERATING SYSTEM: PC-DOS

SOFTWARE: Wordperfect

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/597,495B

FILING DATE: 02-Feb-1996

CLASSIFICATION: 435

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/511,876

FILING DATE: 04-Aug-1995

ATTORNEY/AGENT INFORMATION:

NAME: Hanson, No. 5712369man D.

REGISTRATION NUMBER: 30,946

REFERENCE/DOCKET NUMBER: LUD 5316.1

TELECOMMUNICATION INFORMATION:

TELEPHONE: (212) 688-9200

TELEFAX: (212) 838-3884

INFORMATION FOR SEQ ID NO: 22:

SEQUENCE CHARACTERISTICS:

LENGTH: 319 amino acids

TYPE: amino acid

TOPOLOGY: linear

US-08-597-495B-22

Query Match 14.0%; Score 228.5; DB 1; Length 319;

Best Local Similarity 25.7%; Pred. No. 2.4e-15;

Matches 79; Conservative 49; Mismatches 128; Indels 51; Gaps 14;

Qy 29 IGAVNLKSSNRTVPVQEFESVELSCIITDSQSDPRIEMKKIQDEQTYVVF---FDNK- 83

Db 19 VDAISVTPQDVLRSASOGKSVTLCTYHTSTSSREGLIQWDKLLLTHTERVVHPFSKN 78

Qy 84 -IQGDL-----AGRAELIGKTSKINWTRDLSALYCEVVARNDKKEIDEIVELTV 135

Db 79 YHGEYKRVISNNAE-QSDASITIDQTMADNGTYECSVLSMDLEGNTKSRVRLV 137

Qy 136 QVRPVTVCVRKPAVPVGVKMATLHCQSEGHPRPHYSWYRNDV-----PLPTDSRANPRF 190

Db 138 LVPPSKPECGIEGETIIGNNIQLTCQSKGSPTPQYSMKRYNINLQEQPLAQPASGQP-- 195

Qy 191 RNSSFHLNSETGLVFTAVHKDDSGQYCIASNDAGSARCE-EGEMEVYDLNIG---GII 246

Db 196 -----VSLKNISTDTSGYICHTSSNEEGTQFCNITVAVRSPSNVALYVGA 242

Qy 247 GGVLVAVLALILGICCAVRYGFFIN--NKQDG-----ESYKNPKPGDGVNYI--RTDE 298

Db 243 VGVVAALIIIGIIIIYCCCC---RGKDDNTEDKEDARNREAYEFP--PEQLRELSRREE 297

Qy 299 EGDPRHK 305

Db 298 EDDYRQE 304

## RESULT 4

US-08-979-424-1

; Sequence 1, Application US/08979424

; Patent No. 5942606

; GENERAL INFORMATION:

; APPLICANT: Lal, Preeti

; APPLICANT: Corley, Neil C.

; TITLE OF INVENTION: VIRAL RECEPTOR PROTEIN

; NUMBER OF SEQUENCES: 3

; CORRESPONDENCE ADDRESS:

GenCore version 4.5  
Copyright (c) 1993 - 2000 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: August 6, 2001, 09:29:29 ; Search time 32.37 Seconds

(Without alignments)  
580,582 Million cell updates/sec

Title: US-09-524-531a-13

Perfect score: 1633  
Sequence: 1 MALSRRLRLRLYARLPHPFL.....VNYIRTSEGDGRHKKSFVY 310

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Sequences: 412676 seqs, 60623988 residues

T number of hits satisfying chosen parameters: 412676

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
Maximum Match 100%

Listing first 45 summaries

Database :  
1: /SIDSR/gcgdata/geneseq/geneseq/AA1980.DAT:\*  
2: /SIDSR/gcgdata/geneseq/geneseq/AA1981.DAT:\*  
3: /SIDSR/gcgdata/geneseq/geneseq/AA1982.DAT:\*  
4: /SIDSR/gcgdata/geneseq/geneseq/AA1983.DAT:\*  
5: /SIDSR/gcgdata/geneseq/geneseq/AA1984.DAT:\*  
6: /SIDSR/gcgdata/geneseq/geneseq/AA1985.DAT:\*  
7: /SIDSR/gcgdata/geneseq/geneseq/AA1986.DAT:\*  
8: /SIDSR/gcgdata/geneseq/geneseq/AA1987.DAT:\*  
9: /SIDSR/gcgdata/geneseq/geneseq/AA1988.DAT:\*  
10: /SIDSR/gcgdata/geneseq/geneseq/AA1989.DAT:\*  
11: /SIDSR/gcgdata/geneseq/geneseq/AA1990.DAT:\*  
12: /SIDSR/gcgdata/geneseq/geneseq/AA1991.DAT:\*  
13: /SIDSR/gcgdata/geneseq/geneseq/AA1992.DAT:\*  
14: /SIDSR/gcgdata/geneseq/geneseq/AA1993.DAT:\*  
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17: /SIDSR/gcgdata/geneseq/geneseq/AA1996.DAT:\*  
18: /SIDSR/gcgdata/geneseq/geneseq/AA1997.DAT:\*  
19: /SIDSR/gcgdata/geneseq/geneseq/AA1998.DAT:\*  
20: /SIDSR/gcgdata/geneseq/geneseq/AA1999.DAT:\*  
21: /SIDSR/gcgdata/geneseq/geneseq/AA2000.DAT:\*  
22: /SIDSR/gcgdata/geneseq/geneseq/AA2001.DAT:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1633	100.0	310	21	Human confuency r
2	1633	100.0	310	21	Murine confuency r
3	1409	86.3	310	21	Human confuency r
4	1409	86.3	310	21	Human confuency r
5	1409	86.3	310	21	Human confuency r
6	1409	86.3	310	21	Human confuency r
7	1409	86.3	310	21	Human confuency r
8	1409	86.3	310	21	Human confuency r
9	1409	86.3	310	21	Human confuency r
10	1409	86.3	310	21	Human confuency r
11	1409	86.3	310	21	Human confuency r

12	1409	86.3	311	21	Human secreted pro
13	1409	86.3	339	22	Gene #13 associate
14	1401	85.8	310	21	Human IGFAM-6 immu
15	1313	80.4	285	19	Human secreted pro
16	505	30.9	298	19	Human secreted pro
17	505	30.9	298	22	Human secreted pro
18	498	30.5	298	19	Human secreted pro
19	490.5	30.0	298	21	Human secreted pro
20	490.5	30.0	298	21	Human secreted pro
21	478	29.3	312	20	Human secreted pro
22	478	29.3	312	20	Human secreted pro
23	478	29.3	312	20	Human secreted pro
24	478	29.3	312	21	Human secreted pro
25	478	29.3	312	21	Human secreted pro
26	478	29.3	312	21	Human secreted pro
27	478	29.3	312	22	Human secreted pro
28	478	29.3	312	22	Human secreted pro
29	474	29.0	312	22	Human secreted pro
30	449.5	27.5	300	19	Human secreted pro
31	449.5	27.5	300	20	Human secreted pro
32	445	27.3	280	21	Human secreted pro
33	428	26.2	215	22	Human secreted pro
34	425	26.0	213	21	Human secreted pro
35	415	25.4	299	20	Human secreted pro
36	415	25.4	299	20	Human secreted pro
37	415	25.4	299	20	Human secreted pro
38	415	25.4	299	20	Human secreted pro
39	415	25.4	299	20	Human secreted pro
40	415	25.4	299	21	Human secreted pro
41	415	25.4	299	21	Human secreted pro
42	415	25.4	299	21	Human secreted pro
43	415	25.4	299	22	Human secreted pro
44	415	25.4	299	22	Human secreted pro
45	415	25.4	299	22	Human secreted pro

#### ALIGNMENTS

RESULT 1	AA1980.DAT	Human confuency r
ID	AA1980.DAT	Human confuency r
AC	AA1980.DAT	Human confuency r
XX	AA1980.DAT	Human confuency r
DT	AA1980.DAT	Human confuency r
XX	AA1980.DAT	Human confuency r
DE	AA1980.DAT	Human confuency r
XX	AA1980.DAT	Human confuency r
KW	AA1980.DAT	Human confuency r
KW	AA1980.DAT	Human confuency r
KW	AA1980.DAT	Human confuency r
OS	AA1980.DAT	Human confuency r
XX	AA1980.DAT	Human confuency r
PN	AA1980.DAT	Human confuency r
XX	AA1980.DAT	Human confuency r
PD	AA1980.DAT	Human confuency r
XX	AA1980.DAT	Human confuency r
PF	AA1980.DAT	Human confuency r
XX	AA1980.DAT	Human confuency r
PR	AA1980.DAT	Human confuency r
XX	AA1980.DAT	Human confuency r
PA	AA1980.DAT	Human confuency r
XX	AA1980.DAT	Human confuency r
PI	AA1980.DAT	Human confuency r
XX	AA1980.DAT	Human confuency r
DR	AA1980.DAT	Human confuency r
XX	AA1980.DAT	Human confuency r
PT	AA1980.DAT	Human confuency r
PT	AA1980.DAT	Human confuency r
PT	AA1980.DAT	Human confuency r
XX	AA1980.DAT	Human confuency r

PS Claim 1; Fig 3; 59pp; English.

XX The present sequence is the human confluency regulated adhesion molecule  
CC 1 (CRAM-1, also known as JAM-2). CRAM-1 is one of the vascular adhesion  
CC proteins of the immunoglobulin superfamily (Ig Sf). The CRAM-1 protein  
CC and coding sequence can be used in the treatment of cancer,  
CC inflammation, to modulate cell-cell interactions and angiogenesis, and  
CC in the modulation of wound healing.

XX Sequence 310 AA:

Query Match 100.0%; Score 1633; DB 21; Length 310;  
Best Local Similarity 100.0%; Pred. No. 3.6e-124;  
Matches 310; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 MALSRLRLRLYARLPHPFLLLFRGCMTEAVNLKSSNNPVVHEFESVELSCIITHSQT 60  
DB 1 malsrlrlrllyarlp hfillllfrgcmleavnlkssnnpvvhefesvelscilthsgt 60  
OY 61 SDPRLEMKRIODGQTTVYVFDNKRIOGDLGRDVFEGKTSLRIMWVTRSDSAIYRCEVAL 120  
DB 61 sdprlewkriodgqttvyvfdnkigdlgrdvfgktslrimwvtrsdailyrceval 120  
OY 121 NDRKEVDETIELIVQKRVTPVCRIIPAAPVPGKATLQCOSESEGRPRHYSWRNDVPL 180  
DB 121 ndrkevdeitlielvqkvtpvcrcipaavpvgkatlqcgeseqprphyswyrndvpl 180  
OY 181 PIDSRRANPRFQNSSFHVNSEGTGLVFNVAHKDDSGQYCIASNDAGAACEQDMEVYDL 240  
DB 181 pidsrranprfqnssfhvnsetglvfnavhkddsgqyciasndagaaceqdmeydl 240  
OY 241 NIAGIIGVLLVLIYLAIVTMGICAYRRGCFISSKODESYKSPKHDGVNIRTSEEG 300  
DB 241 niagligvllvliyavltmgicayrrgcflsskodesykpshdgvnyirtseeg 300  
OY 301 DFRHKSSFYI 310  
DB 301 dfrhksfvi 310

RESULT 2

AAB27278  
ID AAB27278 standard; Protein; 310 AA.

XX AAB27278;

XX 23-FEB-2001 (first entry)

XX Murine confluency regulated adhesion molecule 1.

XX Immunoglobulin superfamily; Ig Sf; vascular adhesion molecule;

XX inflammation; cancer; wound; angiogenesis; mouse;

XX confluency regulated adhesion molecule 1; CRAM-1; JAM-2.

XX Mus sp.

XX WO200053749-A2.

XX 14-SEP-2000.

XX 13-MAR-2000; 2000WO-EP02219.

XX 11-MAR-1999; 99EP-0200746.

XX (RMFD-) RMF DICTAGENE SA.

XX Imhof BA, Aurtrand-Lions M;

XX MPI: 2000-587436/55.

XX DR (N-PSDB: AAA97189.

XX Isolated human Confluency Regulated Adhesion Molecule 1 or 2 (CRAM-1 or

PT CRAM-2) polypeptide, useful for treatment of tumors, inflammation  
PT reactions and modulating vascular permeability -

XX Example: Fig 8; 59pp; English.

XX The present sequence is the murine confluency regulated adhesion molecule  
CC 1 (CRAM-1, also known as JAM-2). CRAM-1 is one of the vascular adhesion  
CC proteins of the immunoglobulin superfamily (Ig Sf). The CRAM-1 protein  
CC and coding sequence can be used in the treatment of cancer, inflammation,  
CC to modulate cell-cell interactions and angiogenesis, and in the  
CC modulation of wound healing.

XX Sequence 310 AA:

Query Match 100.0%; Score 1633; DB 21; Length 310;  
Best Local Similarity 100.0%; Pred. No. 3.6e-124;  
Matches 310; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 MALSRLRLRLYARLPHPFLLLFRGCMTEAVNLKSSNNPVVHEFESVELSCIITHSQT 60  
DB 1 malsrlrlrllyarlp hfillllfrgcmleavnlkssnnpvvhefesvelscilthsgt 60  
OY 61 SDPRLEMKRIODGQTTVYVFDNKRIOGDLGRDVFEGKTSLRIMWVTRSDSAIYRCEVAL 120  
DB 61 sdprlewkriodgqttvyvfdnkigdlgrdvfgktslrimwvtrsdailyrceval 120  
OY 121 NDRKEVDETIELIVQKRVTPVCRIIPAAPVPGKATLQCOSESEGRPRHYSWRNDVPL 180  
DB 121 ndrkevdeitlielvqkvtpvcrcipaavpvgkatlqcgeseqprphyswyrndvpl 180  
OY 181 PIDSRRANPRFQNSSFHVNSEGTGLVFNVAHKDDSGQYCIASNDAGAACEQDMEVYDL 240  
DB 181 pidsrranprfqnssfhvnsetglvfnavhkddsgqyciasndagaaceqdmeydl 240  
OY 241 NIAGIIGVLLVLIYLAIVTMGICAYRRGCFISSKODESYKSPKHDGVNIRTSEEG 300  
DB 241 niagligvllvliyavltmgicayrrgcflsskodesykpshdgvnyirtseeg 300  
OY 301 DFRHKSSFYI 310  
DB 301 dfrhksfvi 310

RESULT 3

AAB27276  
ID AAB27276 standard; Protein; 310 AA.

XX AAB27276;

XX 23-FEB-2001 (first entry)

XX Human confluency regulated adhesion molecule 1 #2.

XX Immunoglobulin superfamily; Ig Sf; vascular adhesion molecule;

XX inflammation; cancer; wound; angiogenesis; human;

XX confluency regulated adhesion molecule 1; CRAM-1; JAM-2.

XX Homo sapiens.

XX WO200053749-A2.

XX 14-SEP-2000.

XX 13-MAR-2000; 2000WO-EP02219.

XX 11-MAR-1999; 99EP-0200746.

XX (RMFD-) RMF DICTAGENE SA.

XX Imhof BA, Aurtrand-Lions M;

XX MPI: 2000-587436/55.



CC bowel disease, gluten-sensitive enteropathy and Whipple's disease,  
CC autoimmune or immune-mediated skin diseases, allergic diseases,  
CC immunological diseases of the lung, and transplantation associated  
CC diseases including graft rejection and graft-versus-host-disease.  
CC AAC58397 to AAC58578 represent PCR primers and hybridisation probes used  
CC in the isolation of human PRO sequences. AAC58579 to AAC58642 and  
CC AAB33414 to AAB33477 represent human PRO polynucleotide and protein  
CC sequences given in the exemplification of the present invention.  
XX  
SQ Sequence 310 AA;

FT	/note="N-myristoylation site"
FT	226..231
FT	/note="N-myristoylation site"
FT	243..263
FT	/label="Transmembrane_domain
FT	243..248
FT	/note="N-myristoylation site"
FT	244..249
FT	/note="N-myristoylation site"
FT	262..267

Query Match	86.38;	Score 1409;	DB 21;	Length 310;
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Matches	266;	Conservative	18;	Mismatches	26;	Indels	0;	Gaps	0;
---------	------	--------------	-----	------------	-----	--------	----	------	----

1 MALSRLRLRYARLPHEFLLLLEFGCMIEAVNLKSSNRNPVHFEFESVELSCIITHSQT 60

1. malrrprlrlcarlpdffllllfrgclgavnlksnrtpvqgefesvelscitdsqt 60

61 SDPRIEMKKIODGOTTYVYFDNKKIOGDLAGRTRDVEFGKTSLRIMNVTRSDSAIYRCEVAL 120

```

61 sdbriewkkladeattvffdnklnadl aarael j ktsl kiwvtrrdsal vrcevar 120

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131 NDBKEVDETTEI IVOKRVETBVCBIDAIVDVCEAEI OOOEECEVDDNIVCIVBNDVOR 100

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1. The first part of the paper is devoted to the study of the properties of the function  $f(x)$  defined by the equation

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prostanoid synthase cyclooxygenase (COX) 1 and COX 2. COX 1 is constitutively expressed in most tissues, while COX 2 is induced by various stimuli, including inflammation, growth factors, and cytokines. COX 2 is the primary enzyme responsible for the production of prostaglandins in inflamed tissues. The inhibition of COX 2 by NSAIDs leads to a reduction in prostaglandin production, which in turn results in the relief of pain and inflammation. However, the inhibition of COX 1 can lead to adverse effects, such as gastrointestinal ulcers and renal impairment, which are the primary concerns associated with NSAID use.

241 NIAGIGVLLVLAVITMGLCCAYRRCF:ISSKQDGESIKSPGKHDBVNIRI:SEEG 300

241 nlgglggvllvllavlaalltlglccayrrgytltnkqdgesyknpgkpdgvnylrtldeeg 300

Y 301 DFRHKSSFY 310

b 301 dfrhkssfv1 310

AY96735

AA196/35 standard; protein; 310 AA.

AA96735; C

86-SEP-2000 (first entry)

PRO1868, an A33 antigen homologue.

PRO1868; A33 antigen; secreted protein; transmembrane protein;

cytotoxicity, cytotoxicity, recombinant production, gene therapy.

Homo sapiens.

key	Location/Qualifiers
part1da	1 30

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/label= signal_peptide
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T
...
/notes "N-myristoylation site"

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note- "Tyrosine kinase phosphorylation site"

modified-site	104::10/ /note= "N-glycosylation site"
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Modified-site	106..109
note=	"Case1n kinase TI phosphorylation site"

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T Modified-site 107..110
/rotor "GAMB- and GCMB-donordest protot k1:cccc

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phosphorylation site"

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/note= "N-glycosylation site"
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DR WPI: 2001-123261/13.  
XX New isolated nucleic acid encoding 29 secreted proteins, for  
PI diagnosing, preventing and treating e.g. autoimmune,  
PT hyperproliferative, cardiovascular, and ocular diseases or disorders  
XX and microorganism infections -  
PS Claim 11; Page 538-539; 601pp; English.  
XX The present invention relates to 29 human secreted proteins. The  
CC invention is used to prevent autoimmune diseases e.g. rheumatoid  
CC arthritis, hyperproliferative disorders e.g. neoplasms of the  
CC breast or liver, cardiovascular disorders e.g. cardiac arrest,  
CC cerebrovascular disorders e.g. cerebral ischemia, angiogenesis,  
CC nervous system disorders e.g. Alzheimer's disease, infections  
CC caused by bacteria, viruses and fungi and ocular disorders e.g.  
CC corneal infection. Also used in food preparations.  
XX  
SQ Sequence 310 AA:  
Query Match 86.3%; Score 1409; DB 22; Length 310;  
Best Local Similarity 85.8%; Pred. No. 4.5e-106;  
Matches 266; Conservative 18; Mismatches 26; Indels 0; Gaps 0;  
QY 1 MALSRRLRLRLVLRPHPELLEFRGCMIEAVNLKSSNRNPVHFESEVELSCITTHSQT 60  
DB 1 malrrprlrlcarlpdfffflllffgcllgavnlksnrtlpvgefevelsciltdegt 60  
QY 61 SPPRIEMKKIDGGQTYTYFEDNKGIDGLAGRTDVGKTSIKRWNTBDSAIYRCEVAL 120  
DB 61 sppriemkkidggqtytyfednkgidglagrtdv gktsikrwntbdsaiyrcevalr 120  
QY 121 NNRKEVDTEELIYOVKVPVPCRIPAVPVKGATLQCCSEGYPRPHYSWYRNDVPL 180  
DB 121 nnrkevdteeliyovkvppvpcr ipavpvkgatlqccsegyprphyswyrndvpl 180  
QY 181 PDSRANPRFQNSFHVNSGTGLVFNVAHKDSDGOYYCIASNDAGARCEGQDMEVYDL 240  
DB 181 pdsranprfqnspfhnsgtglvfnvahnkdsgoyyciasndagarceegdmeydl 240  
QY 241 NIAGIIGVLYLVLYAVITMGICCAVRRGCTISSKQDESKSPGKHGVNIRTSEEG 300  
DB 241 niagiigvlylvlyavitmgiccavrrgctisskqdeskspgkhgvnirtseeg 300  
QY 301 DFRHKSSEFYI 310  
DB 301 dfrhkssefyi 310  
RESULT 8  
AA 08 AAB80408 standard; protein: 310 AA.  
XX AAB80408;  
AC AAB80408;  
DT 24-APR-2001 (first entry)  
XX 24-APR-2001 (first entry)  
DE Secreted protein encoded by gene #38.  
XX Secreted protein; human; autoimmune; hyperproliferation;  
KM cardiovascular; cerebrovascular; infection; food.  
XX Homo sapiens.  
OS WO200107459-A1.  
XX 01-FEB-2001.  
XX 20-JUL-2000; 2000WO-US19735.  
XX 23-JUL-1999; 99US-0145220.  
XX

PA (HUMA-) HUMAN GENOME SCI INC.  
XX Rosen CA, Ruben SM, Ebner R, Duan RD, NI J, Soppet DR, Moore PA;  
PI Shi Y, Lafleur DW, Olsen HS, Birse CE, Komatsoulis GA;  
XX WPI: 2001-123261/13.  
DR WPI: 2001-123261/13.  
XX New isolated nucleic acid encoding 29 secreted proteins, for  
PT diagnosing, preventing and treating e.g. autoimmune,  
PT hyperproliferative, cardiovascular, and ocular diseases or disorders  
XX and microorganism infections -  
PS Claim 11; Page 557-558; 601pp; English.  
XX The present invention relates to 29 human secreted proteins. The  
CC invention is used to prevent autoimmune diseases e.g. rheumatoid  
CC arthritis, hyperproliferative disorders e.g. neoplasms of the  
CC breast or liver, cardiovascular disorders e.g. cardiac arrest,  
CC cerebrovascular disorders e.g. cerebral ischemia, angiogenesis,  
CC nervous system disorders e.g. Alzheimer's disease, infections  
CC caused by bacteria, viruses and fungi and ocular disorders e.g.  
CC corneal infection. Also used in food preparations.  
XX  
SQ Sequence 310 AA:  
Query Match 86.3%; Score 1409; DB 22; Length 310;  
Best Local Similarity 85.8%; Pred. No. 4.5e-106;  
Matches 266; Conservative 18; Mismatches 26; Indels 0; Gaps 0;  
QY 1 MALSRRLRLRLVLRPHPELLEFRGCMIEAVNLKSSNRNPVHFESEVELSCITTHSQT 60  
DB 1 malrrprlrlcarlpdfffflllffgcllgavnlksnrtlpvgefevelsciltdegt 60  
QY 61 SPPRIEMKKIDGGQTYTYFEDNKGIDGLAGRTDVGKTSIKRWNTBDSAIYRCEVAL 120  
DB 61 sppriemkkidggqtytyfednkgidglagrtdv gktsikrwntbdsaiyrcevalr 120  
QY 121 NNRKEVDTEELIYOVKVPVPCRIPAVPVKGATLQCCSEGYPRPHYSWYRNDVPL 180  
DB 121 nnrkevdteeliyovkvppvpcr ipavpvkgatlqccsegyprphyswyrndvpl 180  
QY 181 PDSRANPRFQNSFHVNSGTGLVFNVAHKDSDGOYYCIASNDAGARCEGQDMEVYDL 240  
DB 181 pdsranprfqnspfhnsgtglvfnvahnkdsgoyyciasndagarceegdmeydl 240  
QY 241 NIAGIIGVLYLVLYAVITMGICCAVRRGCTISSKQDESKSPGKHGVNIRTSEEG 300  
DB 241 niagiigvlylvlyavitmgiccavrrgctisskqdeskspgkhgvnirtseeg 300  
QY 301 DFRHKSSEFYI 310  
DB 301 dfrhkssefyi 310  
RESULT 9  
AA 09 AAB80409 standard; protein: 310 AA.  
XX AAB80409;  
AC AAB80409;  
DT 24-APR-2001 (first entry)  
XX 24-APR-2001 (first entry)  
DE Secreted protein encoded by gene #39.  
XX Secreted protein; human; autoimmune; hyperproliferation;  
KM cardiovascular; cerebrovascular; infection; food.  
XX Homo sapiens.  
OS WO200107459-A1.  
XX 01-FEB-2001.  
XX



XX 20-JUL-2000; 2000MO-US19735.  
PF  
XX  
PR 23-JUL-1999; 99US-0145220.  
XX  
PA (HUMA-) HUMAN GENOME SCI INC.  
XX  
PI Rosen CA, Ruben SM, Ebner R, Duan RD, Ni J, Soppet DR, Moore PA,  
PI Shi Y, Lafleur DW, Olsen HS, Birse CE, Komatsoulis GA;  
XX  
DR WPI; 2001-123261/13.  
XX  
PT New isolated nucleic acid encoding 29 secreted proteins, for  
PT diagnosing, preventing and treating e.g. autoimmune,  
PT hyperproliferative, cardiovascular, and ocular diseases or disorders  
PT and microorganism infections -  
XX  
XX  
P Claim 11; Page 559-560; 601pp; English.  
XX  
CC The present invention relates to 29 human secreted proteins. The  
CC invention is used to prevent autoimmune diseases e.g. rheumatoid  
CC arthritis, hyperproliferative disorders e.g. neoplasms of the  
CC breast or liver, cardiovascular disorders e.g. cardiac arrest,  
CC cerebrovascular disorders e.g. cerebral ischemia, angiogenesis,  
CC nervous system disorders e.g. Alzheimer's disease, infections  
CC caused by bacteria, viruses and fungi and ocular disorders e.g.  
CC corneal infection. Also used in food preparations.  
XX  
SQ Sequence 310 AA:  
  
Query Match 86.3%; Score 1409; DB 22; Length 310;  
Best local Similarity 85.8%; Pred. No. 4.5e-106;  
Matches 266; Conservative 18; Mismatches 26; Indels 0; Gaps 0;  
  
QY 1 MAISRRLRLYLARLPFLLLFRCGMEAVNKKSNRPVYHEFSVLSCTITHSQT 60  
DB 1 maltrprlrlcarlpdfillllfrgcllgavnlksntrpvvgfsevsclltsqt 60  
QY 61 SDRRIEKKIODGOTVYVYDNKIQGLAGRTDVFCKTSLRINWVTRSDSAIRCEVVAL 120  
DB 61 sdprlewkkiqdegctlyvfdnkigqlagraeligtstskimvtrrdailyrcevar 120  
QY 121 NDRKEVDEITIELVQKPYTPVCRIPAAVPVGTATLQCOESGYPHYSWYRNDVPL 180  
DB 121 ndrkeidelvltvqkpytpvcrypavpvgkmatlhqeseghprphyswyrdvpl 180  
QY 121 ndrkeidelvltvqkpytpvcrypavpvgkmatlhqeseghprphyswyrdvpl 180  
D 121 ndrkeidelvltvqkpytpvcrypavpvgkmatlhqeseghprphyswyrdvpl 180  
QY 181 PTDSRANPRFONSSFHVNSFTGLVFNNAHKDQSGQYTCIASNDAGARCEGDMEVYDL 240  
DB 181 ptdsranprfonsfhvnsftglvfnnahkdsqgytciasndagsarceegemeydl 240  
QY 241 NINGIIGVVLVLIIVAVITMGICAVRRCFTSSKODGSYKSPGKHDCVNTIRTSSEG 300  
DB 241 nlggllggvvlvliavialtligicccaytrigyflnnkqdesyknpgkpdgvnylrrtdee 300  
QY 301 DFRHKSSFVI 310  
DB 301 dfhksfvi 310

RESULT 10  
AAB38333  
ID AAB38333 standard; Protein; 311 AA.  
XX  
AC AAB38333;  
XX  
DT 31-JAN-2001 (first entry)  
XX  
DE Human secreted protein encoded by gene 13 clone HAPSAT79.  
XX  
KW Immunosuppressive; antiarthritis; antirheumatic; antiproliferative;  
KW cytostatic; cardiant; vasotropic; cerebroprotective; neuroprotective;  
KW nootropic; antibacterial; virucide; fungicide; ophthalmological; human;

KW vulnerable; gene therapy; infection; secreted protein.  
XX  
OS Homo sapiens.  
XX  
PN WO200061623-A1.  
XX  
PD 19-OCT-2000.  
XX  
PF 06-APR-2000; 2000MO-US08979.  
XX  
PR 09-APR-1999; 99US-0128693.  
XX  
PR 26-APR-1999; 99US-0130991.  
XX  
PA (HUMA-) HUMAN GENOME SCI INC.  
XX  
PI Ruben SM, Ni J, Komatsoulis GA, Rosen CA, Soppet DR, Shi Y;  
PI Lafleur DW, Olsen HS, Ebner R, Florence KA, Moore PA, Birse CE;  
PI Young PE;  
XX  
XX  
DR WPI; 2000-647418/62.  
XX  
PT New nucleic acid molecules encoding 62 human secreted proteins for  
PT diagnosing, preventing, treating or ameliorating medical conditions and  
PT used as food additives or preservatives -  
XX  
XX  
P Claim 11; Page 603-604; 716pp; English.  
XX  
CC Sequences AAB38321-B38396 represent the amino acid sequences of 62  
CC human secreted proteins encoded by the genes AAB69512-C69587. The genes  
CC and proteins are useful for preventing, ameliorating or treating medical  
CC conditions, e.g. by protein or gene therapy. The genes are isolated from  
CC a range of human tissues disclosed in the specification. The nucleic  
CC acids, proteins, antibodies and (ant)agonists are useful in the  
CC diagnosis, treatment and prevention of: (a) autoimmune diseases e.g.  
CC rheumatoid arthritis, (b) hyperproliferative disorders e.g. neoplasms  
CC of the breast or liver; (c) cardiovascular disorders e.g. cardiac  
CC arrest; (d) cerebrovascular disorders e.g. cerebral ischemia; (e)  
CC angiogenesis; (f) nervous system disorders e.g. Alzheimer's disease; (g)  
CC infections caused by bacteria, viruses and fungi; and (h) ocular  
CC disorders e.g. corneal infection. The polypeptides can also be used to  
CC aid wound healing and epithelial cell proliferation, to prevent skin  
CC aging due to sunburn, to maintain organs before transplantation, for  
CC supporting cell culture of primary tissues, to regenerate tissues and in  
CC chemotaxis.  
XX  
SQ Sequence 311 AA:  
  
Query Match 86.3%; Score 1409; DB 21; Length 311;  
Best local Similarity 85.8%; Pred. No. 4.5e-106;  
Matches 266; Conservative 18; Mismatches 26; Indels 0; Gaps 0;  
  
QY 1 MAISRRLRLYLARLPFLLLFRCGMEAVNKKSNRPVYHEFSVLSCTITHSQT 60  
DB 1 maltrprlrlcarlpdfillllfrgcllgavnlksntrpvvgfsevsclltsqt 60  
QY 61 SDRRIEKKIODGOTVYVYDNKIQGLAGRTDVFCKTSLRINWVTRSDSAIRCEVVAL 120  
DB 61 sdprlewkkiqdegctlyvfdnkigqlagraeligtstskimvtrrdailyrcevar 120  
QY 121 NDRKEVDEITIELVQKPYTPVCRIPAAVPVGTATLQCOESGYPHYSWYRNDVPL 180  
DB 121 ndrkeidelvltvqkpytpvcrypavpvgkmatlhqeseghprphyswyrdvpl 180  
QY 181 PTDSRANPRFONSSFHVNSFTGLVFNNAHKDQSGQYTCIASNDAGARCEGDMEVYDL 240  
DB 181 ptdsranprfonsfhvnsftglvfnnahkdsqgytciasndagsarceegemeydl 240  
QY 241 NINGIIGVVLVLIIVAVITMGICAVRRCFTSSKODGSYKSPGKHDCVNTIRTSSEG 300  
DB 241 nlggllggvvlvliavialtligicccaytrigyflnnkqdesyknpgkpdgvnylrrtdee 300  
QY 301 DFRHKSSFVI 310

Db 301 dfrhksstfv1 310

## RESULT 11

AAB38383 AAB38383 standard; Protein; 311 AA.

AC AAB38383;

DE 31-JAN-2001 (first entry)

Human secreted protein encoded by gene 13 clone HAPSA79.

Immunosuppressive; antiarthritic; antirheumatic; antiproliferative;  
cytostatic; cardiatic; vasotropic; cerebroprotective; neuroprotective;  
nocrotropic; antibacterial; virucide; fungicide; optalmalogical; human;  
vulnerary; gene therapy; infection; secreted protein.

OS Homo sapiens.

PN WO200061623-A1.

PE 9-OCT-2000.

PF 06-APR-2000; 2000WO-US08979.

PR 09-APR-1999; 99US-0128693.

PR 26-APR-1999; 99US-0130991.

PA (HUMA-) HUMAN GENOME SCI INC.

PI Ruben SM, NI J, Komatsoulis GA, Rosen CA, Soppet DR, Shi Y;

PI Lafleur DW, Olsen HS, Ebner R, Florence KA, Moore PA, Blirre CE;

PI Young PE;

PI WPI; 2000-647418/62.

New nucleic acid molecules encoding 62 human secreted proteins for  
diagnosing, preventing, treating or ameliorating medical conditions and  
used as food additives or preservatives -

Claim 11; Page 642-643; 716pp; English.

Sequences AAB38321-B38396 represent the amino acid sequences of 62

human secreted proteins encoded by the genes AAC69512-C69587. The genes

and proteins are useful for preventing, ameliorating or treating medical

conditions, e.g. by protein or gene therapy. The genes are isolated from

a range of human tissues disclosed in the specification. The nucleic

acids, proteins, antibodies and (ant)agonists are useful in the

diagnosis, treatment and prevention of: (a) autoimmune diseases e.g.

rheumatoid arthritis; (b) hyperproliferative disorders e.g. neoplasms

of the breast or liver; (c) cardiovascular disorders e.g. cardiac

arrest; (d) cerebrovascular disorders e.g. cerebral ischemia; (e)

angioogenesis; (f) nervous system disorders e.g. Alzheimer's disease; (g)

infections caused by bacteria, viruses and fungi; and (h) ocular

disorders e.g. corneal infection. The polypeptides can also be used to

aid wound healing and epithelial cell proliferation, to prevent skin

aging due to sunburn, to maintain organs before transplantation, for

supporting cell culture of primary tissues, to regenerate tissues and in

chemotaxis.

Sequence 311 AA;

Query Match 86.3%; Score 1409; DB 21; Length 311;

Best Local Similarity 85.8%; Pred. No. 4.5e-106;

Matches 266; Conservative 18; Mismatches 26; Indels 0; Gaps 0;

1 MLSTRRLRLRLARLPHFLLLFRGCMIEAVNLKSSNNPNVYHEESELSCITTHSOT 60

1 MLSTRRLRLRLARLPHFLLLFRGCMIEAVNLKSSNNPNVYHEESELSCITTHSOT 60

QY 61 SDPRIEMKKIODGQTTYYVFNKIOGDLAGRTDVEGKTSRLRMWTRSDSATYRCEVVAL 120

Db 61 sdprlewkkigdeqtlyvfnfndkigddlagraeiliqtsiklmwtrdsalryceav 120

QY 121 NDRKEYDETIELIYQVKVTPVCRIPAAVPYGGKATITLQCSSEGYPRPHYSWTRNDVPL 180

Db 121 ndrkeydelvleltvqvktpvcrcvpkavpvgkmalchcgeseghprphyswtrndvpl 180

QY 181 PDRSRANPRFONSFPVNSEGTILVFNNAVHKDSDGOYCIASNDGAARCEQDDEYVDL 240

Db 181 pdrsrnprfnssfhlmsctglvtavhkdssgqyciasndagsarceqdeyvd 240

QY 241 NIAGIIGVLYVLIYAVITMGICCAARRGCEISSKODESYSPGKHGVNVIYRTSEEG 300

Db 241 ntagiigvlyvliylavitmgiccarrgceisskodesyspgkhdgvnyirtseeg 300

QY 301 DFRHKSSTFV1 310

Db 301 dfrhksstfv1 310

## RESULT 12

AAB38384 AAB38384 standard; Protein; 311 AA.

AC AAB38384;

DE 31-JAN-2001 (first entry)

Human secreted protein encoded by gene 13 clone HAPSA79.

Immunosuppressive; antiarthritic; antirheumatic; antiproliferative;  
cytostatic; cardiatic; vasotropic; cerebroprotective; neuroprotective;  
nocrotropic; antibacterial; virucide; fungicide; optalmalogical; human;  
vulnerary; gene therapy; infection; secreted protein.

OS Homo sapiens.

PN WO200061623-A1.

PE 19-OCT-2000.

PF 06-APR-2000; 2000WO-US08979.

PR 09-APR-1999; 99US-0128693.

PR 26-APR-1999; 99US-0130991.

PA (HUMA-) HUMAN GENOME SCI INC.

PI Ruben SM, NI J, Komatsoulis GA, Rosen CA, Soppet DR, Shi Y;

PI Lafleur DW, Olsen HS, Ebner R, Florence KA, Moore PA, Blirre CE;

PI Young PE;

PI WPI; 2000-647418/62.

New nucleic acid molecules encoding 62 human secreted proteins for  
diagnosing, preventing, treating or ameliorating medical conditions and  
used as food additives or preservatives -

Claim 11; Page 643-644; 716pp; English.

Sequences AAB38321-B38396 represent the amino acid sequences of 62

human secreted proteins encoded by the genes AAC69512-C69587. The genes

and proteins are useful for preventing, ameliorating or treating medical

conditions, e.g. by protein or gene therapy. The genes are isolated from

a range of human tissues disclosed in the specification. The nucleic

acids, proteins, antibodies and (ant)agonists are useful in the

diagnosis, treatment and prevention of: (a) autoimmune diseases e.g.

rheumatoid arthritis; (b) hyperproliferative disorders e.g. neoplasms

of the breast or liver; (c) cardiovascular disorders e.g. cardiac

arrest; (d) cerebrovascular disorders e.g. cerebral ischemia; (e)

angioogenesis; (f) nervous system disorders e.g. Alzheimer's disease; (g)

infections caused by bacteria, viruses and fungi; and (h) ocular

CC disorders e.g. corneal infection. The polypeptides can also be used to  
CC aid wound healing and epithelial cell proliferation, to prevent skin  
CC aging due to sunburn, to maintain organs before transplantation, for  
CC supporting cell culture of primary tissues, to regenerate tissues and in  
CC chemotaxis.  
XX  
SO Sequence 311 AA;

Query Match 86.3%; Score 1409; DB 21; Length 311;  
Best Local Similarity 85.8%; Pred. No. 4.5e-106;  
Matches 266; Conservative 18; Mismatches 26; Indels 0; Gaps 0;

OY 1 MALSRLRLRYARLPHEFLLLRGCMIEAVNLKSSNRNPVHFESEVELSCIITHSOT 60  
Db 1 malrpprlrclarlpdflllllfrgcllgavnlkssnrtpvqgfesvelsciltdsq 60  
C 61 SDRPEWKKIDGQTTYVPFNKTOGDLAGRTDVGKTSLRIMWTRSDSAIYCEVAL 120  
Db 61 sdrpewkkidqetlyvfinklqgdlaagraellgktslkmvtrdsalyccevar 120  
C 121 NDREVEDEITELIYQVPTVPCRIPAVPGKATATLCOESEGYPHYSWYRNDVPL 180  
Db 121 ndrveideivlelcvqkvpvpcrvpkavpygmaltlhcgesghprphyswyrndvpl 180  
OY 181 PTDSRANRPNFNSFHNSETGTLVFNAVHRKDDSGQYCIASNDGAARCEGDMEVYL 240  
Db 181 ptdsranprfnssfhlnsetgltvfvahkddsgqyciasndagsarceegemeydl 240  
OY 241 NIAGTIGVLYLVLYAVITMGICCAVRRGCFISKQGESYKSPKRDGYNVYRTSEG 300  
Db 241 n1ag1lgvlylvlyav1tmgicccayrrgyfinkkgdesyknpgkpdgvnylrtdceg 300  
OY 301 DFRHKSFFVI 310  
Db 301 dfrhksffvi 310

## RESULT 13

AAB80431  
ID AAB80431 standard; peptide: 339 AA.

XX AAB80431;  
XX  
DT 24-APR-2001 (first entry)

XX Gene #13 associated peptide #1.

XX Secreted protein: human; autoimmune; hyperproliferation;  
XX cardiovascular; cerebrovascular; infection; food.

XX Homo sapiens.

XX W0200107459-A1.

XX 01-FEB-2001.

XX 20-JUL-2000; 2000WO-US19735.

XX 23-JUL-1999; 99US-0145220.

XX (HUMA-) HUMAN GENOME SCI INC.

XX Rosen CA, Ruben SM, Ebner R, Duan RD, Ni J, Soppet DR, Moore PA;  
XX Shi Y, Lafleur DW, Olsen HS, Birse CB, Komatsoulis GA;

XX WPI: 2001-123261/13.

XX New isolated nucleic acid encoding 29 secreted proteins, for  
XX diagnosing, preventing and treating e.g. autoimmune,  
XX hyperproliferative, cardiovascular, and ocular diseases or disorders  
XX and microorganism infections

PS Disclosure: Page 75; 601pp: English.

XX The present invention relates to 29 human secreted proteins. The  
XX invention is used to prevent autoimmune diseases e.g. rheumatoid  
XX arthritis, hyperproliferative disorders e.g. neoplasms of the  
XX breast or liver, cardiovascular disorders e.g. cardiac arrest,  
XX cerebrovascular disorders e.g. cerebral ischemia, angiogenesis,  
XX nervous system disorders e.g. Alzheimer's disease, infections  
XX caused by bacteria, viruses and fungi and ocular disorders e.g.  
XX corneal infection. Also used in food preparations.  
SO Sequence 339 AA;

Query Match 86.3%; Score 1409; DB 22; Length 339;  
Best Local Similarity 85.8%; Pred. No. 5e-106;  
Matches 266; Conservative 18; Mismatches 26; Indels 0; Gaps 0;

OY 1 MALSRLRLRYARLPHEFLLLRGCMIEAVNLKSSNRNPVHFESEVELSCIITHSOT 60  
Db 30 malrpprlrclarlpdflllllfrgcllgavnlkssnrtpvqgfesvelsciltdsq 89  
OY 61 SDRPEWKKIDGQTTYVPFNKTOGDLAGRTDVGKTSLRIMWTRSDSAIYCEVAL 120  
Db 90 sdrpewkkidqetlyvfinklqgdlaagraellgktslkmvtrdsalyccevar 149  
OY 121 NDREVEDEITELIYQVPTVPCRIPAVPGKATATLCOESEGYPHYSWYRNDVPL 180  
Db 150 ndrveideivlelcvqkvpvpcrvpkavpygmaltlhcgesghprphyswyrndvpl 209  
OY 181 PTDSRANRPNFNSFHNSETGTLVFNAVHRKDDSGQYCIASNDGAARCEGDMEVYL 240  
Db 210 ptdsranprfnssfhlnsetgltvfvahkddsgqyciasndagsarceegemeydl 269  
OY 241 NIAGTIGVLYLVLYAVITMGICCAVRRGCFISKQGESYKSPKRDGYNVYRTSEG 300  
Db 270 n1ag1lgvlylvlyav1tmgicccayrrgyfinkkgdesyknpgkpdgvnylrtdceg 329  
OY 301 DFRHKSFFVI 310  
Db 330 dfrhksffvi 339

## RESULT 14

AAY96294  
ID AAY96294 standard; protein: 310 AA.

XX AAY96294;

XX 16-AUG-2000 (first entry)

XX Human IGFAM-6 immunoglobulin.

XX Human; immunoglobulin; IGFAM-6; IGFAM; immune disorder; cancer;  
XX infection; inflammation; haematopoiesis; AIDS; allergy.

XX Homo sapiens.

XX key Location/Qualifiers

XX Peptide 1..30

XX Protein /label= signal\_peptide

XX Domain 31..310

XX Domain /label= IGFAM-6

XX Domain 46..117

XX Domain /label= Ig\_domain

XX Domain 153..221

XX Domain /label= Ig\_domain

XX Domain 238..260

XX Domain /label= transmembrane\_domain

XX W0200029583-A2.

XX 25-MAY-2000.



Db 61 gdlagraellyktslkimvlttridsalyrcevarndrkxideivleltvqvkpvtprcr 120  
QY 146 IPAAPVYGTATLQCOSESEGYPRPHYSMYRNDVPLPTDSRANPRFONSSFHVNSEGTLY 205  
Db 121 vpkxvpygkmatlhcgeseqhprphyswyrndvplpctdranprfrnssfhnsetgtlv 180  
QY 206 FNAVHKDDSGOYCIASNDAGAACRCEGQDMEVYDLNLAGIIGVLYVLIYLAVTMGICC 265  
Db 181 ftavhkddsgyyciasndagsarceegemevydlnlgylgvlvlaavlaltlglcc 240  
QY 266 AYRRCEFISSKOGESYKSPGKHGCVNYIRTSSEGDFFRHKSSEYI 310  
Db 241 ayrrgyflinkgdgesyknpgkpdgvnyirtdeegdltrhkssivl 285

Search completed: August 6, 2001, 09:33:05  
Jame: 216 sec

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Db      1  gcllgavnlkssnrlpvygfeveselcildsqtsdprlewkxiqdeqltyvlfchkiq 60
Oy      86  GDLAGRTDVEGKTLRIWNTSRSDAIVRCEVALNDRKEVDITIELIYQVKRPVTPYCR 145
Db      61  gdlagrellelglkstklnvrrtsalrycevarndtkxideiveltvqvkptpvr 120
Oy      146  IPAAPVPGKATATLQCESEGYPRPHYSWYRNDVPLPTDSRANRPFQNSFHVNSEGTGLV 205
Db      121  vpkxvpgkmalchgcgesgphrphyswyrndvplptdsranprfrmsfhlntsetglv 180
Oy      206  FNAVHKDSCGYCIASNDACARCEGDMFVYDLNLAGITGVLVLLVAVITMGICC 265
Db      181  ftavhkddsgqyciasndagsarceegemevdi19g1lgv1vav1a1l1l1g1cc 240
Oy      266  AYRRCFTSSKODESEYKSPGKHGVDVNYRTSEEGDFRHKSSFYI 310
Db      241  ayrrgyflnnkqdgdesyknpgkpdgvnyirtddegdffhksfvi 285

RES 16
AAID 16  MAM85457 standard; Protein; 298 AA.
XX
AC 25-FEB-1999 (first entry)
XX
DE 25-FEB-1999 (first entry)
XX
DE Secreted protein encoded by clone ct864_4.
XX
KW Secreted protein; nutritional activity; immune stimulating; vaccine;
KW suppressing activity; haematopoiesis regulating activity;
KW tissue growth activity; activin; inhibin activity; chemotaxis;
KW chemokinetic activity; haemostasis; thrombolytic activity; receptor;
KW ligand; anti-inflammatory; cadherin; tumour invasion suppressor;
KW tumour inhibition; gene therapy.
XX
XX Homo sapiens.
XX
PN MO9842739-A2.
XX
PD 01-OCT-1998.
XX
PF 20-MAR-1998; 98WO-US05653.
XX
PR 19-MAR-1998; 98US-0044466.
XX
PR 21-MAR-1997; 97US-0822167.
XX
PA (GEMV ) GENETICS INST INC.
XX
PI Agostino MJ, Jacobs K, Lavallic ER, McCoy JM, Merberg D;
PI Racie LA, Spaulding V, Treacy M;
XX
DR MPI: 1998-609890/51.
XX
DR N-PSDB: AAV82780.
XX
XX New polynucleotides encoding secreted human proteins - derived from
XX human foetal brain, adult brain, foetal kidney, placenta or adult
XX pleural gland cDNA libraries.
XX
PS Claim 17; Page 73-74; 113pp; English.
XX
XX The present sequence represents a secreted protein. The polynucleotide
XX and secreted protein are predicted to have biological activities which
XX would make them suitable for treating, preventing or ameliorating medical
XX conditions in humans and animals, although no supporting data is given.
XX Suggested activities include nutritional activity, immune stimulating
XX (e.g. as vaccines) or suppressing activity, haematopoiesis regulating
XX activity, tissue growth activity, activin/inhibin activity,
XX chemotactic/chemokinetic activity, haemostatic and thrombolytic activity,
XX receptor/ligand activity, anti-inflammatory activity, cadherin/tumour
XX invasion suppressor activity, and tumour inhibition activity (no data is
XX given in the specification to support these activities). The

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```

CC polynucleotide is also stated to be useful for gene therapy.
XX
SQ Sequence 298 AA:
Oy      3  LSRRLRLRLVRLPHFLLLFRCMI----EAVVY--SRNDVYH--EPSEVELSCI 55
Db      1  marrrsrhl-----lllllylvalgyhkaygfsaukdgqvavavegqailac-k 51
Oy      56  THSGTSPRIFEMKKIQGCGTITYVFDDKIGDLAGRTVWCKTSLRIWNTSRSDAIVRC 115
Db      52  tpkktvsrlwkk1-grsvsfvygql19dftknra--lfrlrlknvrlsda19rc 109
Oy      116  EVVALNDR-KEVDITIELIYQVKRPVTPVCRIPAAVYRLATLQCESEGYPRPHYSWY 174
Db      110  evsapsegqnlledvltvlelvavapvscvpsalsr-vvelrcqdkgnpapeytwf 169
Oy      175  RNDVPLPTDSRANRPFQNSFHVNSEGTGLVFNAVHK--SCGYCIASNDACARCEGOD 234
Db      170  kdglrlllenprlgsgsnssytmntktgltqfntvsklulgeyscearnsvgyrrcp9kr 229
Oy      235  MEYVDLNIAGTICGVLVVLYLVAVITMGICAVRRCCTSSKDGCFSPGKHGVDVNYI 294
Db      230  mqvdldn1sglllaqvavav1svcg1avcyar1ky1-ske-----ts1gksnsska 282
Oy      295  RTSEEGDFRHKSSFYI 310
Db      283  ttmseendkhkksfii 298

RESULT 17
AAID 17  AAV00512 standard; Protein; 298 AA.
XX
AC 09-MAY-2001 (first entry)
XX
DE Human junctional adhesion protein (JAM2).
XX
KW Junctional adhesion protein; JAM2; cellular localisation;
KW cellular expression; immunoprecipitation; s token; phosphorylation;
KW glycosylation; paracelluar migration; inflammatory disease--
KW arthritis; asthma; rheumatoid arthritis; inflammatory bowel disease;
KW Crohn's disease.
XX
XX Homo sapiens.
XX
OS
XX
FH Key 1..20 Location/Qualifiers
FT Peptide /note= "Possible signal peptide #1"
FT Peptide 1..28 /note= "Possible signal peptide #2"
FT Protein 21..298 /note= "Possible mature JAM: #1"
FT Protein 29..298 /note= "Possible mature JAM: #2"
FT Domain 237..254 /note= "Transmembrane domain"

MO200114404-A1.
XX
PD 01-MAR-2001.
XX
XX 23-AUG-2000; 2000WO-US23158.
XX
PR 24-AUG-1999; 99US-0150459.
XX
XX (TEXAS-) TEXAS BIOTECHNOLOGY CORP.
PA

```





Db 110 evapasegqguleedltvlevlavapavscvpssalsgtvvelrcdqkngnpapeylwf 169  
QY 175 RNDVPLPTDSRANPRFONSSFRHVSFETGLTFVNAVHKDDSGOYCIASNDGAARCEGOD 234  
Db 170 kdgylrllempilgsgstnsytmktcglqfntvskldtqeysearntsvgyrrcpqkr 229  
QY 235 MEVYDLNAGIGVVLVLAVALITMGICCAVRRCFISKODGESYKSPKHDGVNYI 294  
Db 230 mqvddlnlsgllaaavvalvavsvogjgvcyagtkgyf--ske-----tsfqknsssa 282  
QY 295 RTSEEGDFRHKSEFVI 310  
Db 283 ttmsemdfkhtksfll 298

## RESULT 19

AAB27273 standard; Protein: 298 AA.

AAB27273:

FEB-2001 (first entry)

Human confluency regulated adhesion molecule 2 #1.

Immunoglobulin superfamily; Ig SF; vascular adhesion molecule;  
inflammation; cancer; wound; angiogenesis; human;  
confluency regulated adhesion molecule 2; CRAM-2; JAM-3.

Homo sapiens.

WO200053749-A2.

14-SEP-2000.

13-MAR-2000; 2000WO-EP02219.

11-MAR-1999; 99EP-0200746.

(RMPD-) RMP DICTAGENE SA.

Imhof BA, Aurrand-Lions M;

WPI: 2000-587436/55.

Isolated human Confluency Regulated Adhesion Molecule 1 or 2 (CRAM-1 or  
CRAM-2) polypeptide, useful for treatment of tumors, inflammation  
reactions and modulating vascular permeability

aim 1; Fig 3; 59pp; English.

The present sequence is the human confluency regulated adhesion molecule  
2 (CRAM-2), also known as JAM-3). Cram-2 is one of the vascular adhesion  
proteins of the immunoglobulin superfamily (Ig SF). The Cram-2 protein  
and coding sequence can be used in the treatment of cancer, inflammation,  
to modulate cell-cell interactions and angiogenesis, and in the  
modulation of wound healing.

Sequence 298 AA:

Query Match 30.0%; Score 490.5; DB 21; Length 298;  
Best Local Similarity 37.6%; Pred. No. 6.3e-32; Indels 27; Gaps 9;  
Matches 117; Conservative 49; Mismatches 118;

QY 13 ARLPHEFILLFRGCMIEAVNLKSSN-----RNPVHEFESVELSCITTHSOTSDP 63  
Db 2 arspqgllmlillhylyvaldyhkanngfsaskdhqevrvielfgeallac-klpkktss 60  
QY 64 RIEMKKIODGQTTYYVFDNRKIOGDLAAGRTDVGKTSRLRIWNTSRSDSAIYRCEVALNDR 123  
Db 61 RIEMKKIVGGV-vslvyvqgalgdfdkdraemi-dfnitrikvtrsdageyrcvcsapged 118

QY 124 -KEVDEITIELIVQKVTTPPCRIIPAAPVPGKTATLQCL-SEGIIPRHYSNTRNDVPLPT 182  
Db 119 gqnqgedkvmlerlv-efavpacceprtsmgtsvvelrcdqkngnpapeylwfkdg-----t 174  
QY 183 DSRANPR---FONSFFVNSETGTLFVNAVHKDDSGOYCIASNDGAARCEGODEVYD 239  
Db 175 sllnpkygthnsv-vcnehesgllqfmmiskmdsge, cztv-eyghrrcpqkrmqvdy 234  
QY 240 LNIAGTIGGVVLVLAVALITMGICCAVRRCFISSKK--SYKSPKHDGVNYIRTSEE 299  
Db 235 lnslgllatvvavfivsvogjgvcyagtkgyf--sk-ghesp---askvtlmge 287  
QY 300 GDFRHKSEFVI 310  
Db 288 ndfhtksfll 298

## RESULT 20

AAB27275 standard; Protein: 298 AA.

AAB27275:

23-FEB-2001 (first entry)

Murine confluency regulated adhesion molecule 2.

Immunoglobulin superfamily; Ig SF; vascular adhesion molecule;  
inflammation; cancer; wound; angiogenesis; mouse;  
confluency regulated adhesion molecule 2; Cram-2; JAM-3.

Mus sp.

WO200053749-A2.

14-SEP-2000.

13-MAR-2000; 2000WO-EP02219.

11-MAR-1999; 99EP-0200746.

(RMPD-) RMP DICTAGENE SA.

Imhof BA, Aurrand-Lions M;

WPI: 2000-587436/55.

Isolated human Confluency Regulated Adhesion Molecule 1 or 2 (CRAM-1 or  
CRAM-2) polypeptide, useful for treatment of tumors, inflammation  
reactions and modulating vascular permeability

Example; Fig 5; 59pp; English.

The present sequence is the murine confluency regulated adhesion molecule  
2 (CRAM-2), also known as JAM-3). Cram-2 is one of the vascular adhesion  
proteins of the immunoglobulin superfamily (Ig SF). The Cram-2 protein  
and coding sequence can be used in the treatment of cancer, inflammation,  
to modulate cell-cell interactions and angiogenesis, and in the  
modulation of wound healing.

Sequence 298 AA:

Query Match 30.0%; Score 490.5; DB 21; Length 298;  
Best Local Similarity 37.6%; Pred. No. 6.3e-32; Indels 27; Gaps 9;  
Matches 117; Conservative 49; Mismatches 118;

QY 13 ARLPHEFILLFRGCMIEAVNLKSSN-----RNPVHEFESVELSCITTHSOTSDP 63  
Db 2 arspqgllmlillhylyvaldyhkanngfsaskdhqevrvielfgeallac-klpkktss 60  
QY 64 RIEMKKIODGQTTYYVFDNRKIOGDLAAGRTDVGKTSRLRIWNTSRSDSAIYRCEVALNDR 123  
Db 61 RIEMKKIVGGV-vslvyvqgalgdfdkdraemi-dfnitrikvtrsdageyrcvcsapged 118



GenCore version 4.5  
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OM protein - protein search, using sw model

Run on: August 6, 2001, 09:31:29 ; Search time 25.41 Seconds

(without alignments)  
929,324 Million cell updates/sec

Title: US-09-524-531a-13

Perfect score: 1633  
Sequence: 1 MALSRRRLRLRLYLARLPHEFL.....VNYIRTSEGDGFRHKSFEVI 310

Scoring table: BIOSUM62  
Gapop 10.0 , Gapext 0.5

Sequences: 219241 seqs, 76174552 residues

Number of hits satisfying chosen parameters: 219241

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Lasting first 45 summaries

Database :

1: PIR68:\*  
2: PIR1:\*  
3: PIR2:\*  
4: PIR3:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	181	11.1	725	2 JE0099	neural cell adhesi
2	180	11.0	1088	1 IJXLNTL	neural cell adhesi
3	178	10.9	1051	2 A39712	kinase-like protei
4	177	10.8	333	2 A31923	amalgam protein pr
5	172.5	10.6	858	1 IJRTNC	neural cell adhesi
6	169.5	10.4	725	1 IJMSNG	neural cell adhesi
7	169.5	10.4	1115	1 IJMSNG	neural cell adhesi
8	169	10.3	725	2 JE0100	neural cell adhesi
9	169	10.3	1092	1 JN0635	neural cell adhesi
10	167.5	10.3	3707	2 S18252	heparan sulfate pr
11	167.5	10.3	6642	2 T29757	protein UNC-89 - C
12	166	10.2	483	2 T17346	hypothetical prote
13	164.5	10.1	352	2 T33433	hypothetical prote
14	164.5	10.1	853	1 IJBNOC	neural cell adhesi
15	164	10.0	7962	2 I38346	elastic titin - hu
16	163	10.0	761	1 IJHUNG	neural cell adhesi
17	162	9.9	5175	2 T20992	hypothetical prote
18	162	9.9	5198	2 T43290	hemiscantin precurs
19	160	9.8	875	2 T33434	hypothetical prote
20	159.5	9.8	1277	2 T30532	neural cell adhesi
21	157	9.6	1091	1 IJCHNL	neural cell adhesi
22	156	9.6	344	2 I56551	neurotrophin - rat
23	156	9.6	1323	2 PNO568	connectin 3B - chi
24	156	9.6	4162	2 T42633	connectin/tilin -
25	154.5	9.5	272	2 I48268	billary glycoprote
26	153.5	9.4	1033	2 S19247	cell adhesion prot
27	153	9.4	1273	2 T42405	sax-3 protein - Ca
28	152	9.3	538	2 JC2457	vascular cell adhe
29	151.5	9.3	811	2 A41054	fasciclin II, tran

30	151.5	9.3	873	2 B41054	fasciclin II pr-11
31	151.5	9.3	1427	2 I51669	tumor suppressor -
32	151	9.2	1091	2 A58532	glial cell membran
33	151	9.2	1894	2 C54689	protein-tyrosine-p
34	151	9.2	1912	2 A56178	protein-tyrosine-p
35	150	9.2	423	2 T29549	hypothetical prote
36	150	9.2	584	2 T08678	hypothetical prote
37	150	9.2	1694	2 S50065	slaloadhesin - mou
38	149.5	9.2	4391	2 A38096	perlecan precursor
39	149	9.1	1612	2 T30805	duiti protein - mo
40	148.5	9.1	871	1 I48696	protein-tyrosine k
41	148.5	9.1	881	1 I48697	protein-tyrosine k
42	148.5	9.1	1070	2 JC4593	protein-tyrosine k
43	148	9.1	947	1 B44294	unc-5 protein, lon
44	148	9.1	1040	2 A34695	axonal glycoprotei
45	148	9.1	1040	2 A49356	transient axonal g

#### ALIGNMENTS

##### RESULT 1

JE0099 neural cell adhesion molecule 1 - African clawed frog

N/Alternate names: N-CAM 1

C/Species: Xenopus laevis (African clawed frog)

C/Date: 19-May-1998 #sequence\_revision 29-May-1998 #text\_change 21-Jul-2000

C/Accession: JE0099

R/Kudo, M.; Takayama, E.; Tadakuma, T.; Shiohawa, K.

Biochem. Biophys. Res. Commun. 245, 127-132, 1998

A/Title: Molecular cloning of ssd-form neural cell adhesion molecules (N-CAMs) as the

A/Reference number: JE0099, MUID:98204770

A/Accession: JE0099

A/Molecule type: mRNA

A/Residues: 1-725 <KUD>

A/Cross-references: DDBJ:AB008162; NID:93116226; PIDN:BA25931.1; PID:93116227

A/Experimental source: heart

C/Comment: This protein mediates and regulates various cell-cell interactions through

C/Superfamily: neural cell adhesion molecule; fibronectin type III repeat homology; 1

F:413-475/Domain: immunoglobulin homology <IMM>

F:512-589/Domain: fibronectin type III repeat homology <IFR>

Query Match 11.1%; Score 181; DB 2; Length 725;

Best Local Similarity 28.8%; Pred. No. 6.3e-07;

Matches 60; Conservative 33; Mismatches 81; Indels 34; Gaps 11;

QY 32 VNKK-----SSNNPVVHERFESVELSCITHSQTSDFR-IEWK-KIODGQTTYTFPNKI 84

Db 107 VNKKYOKLTFKNAFPPOEFKEGDVAVICDVSSISITWRHKKD-----VIFKKDV 161

QY 85 QGDLAGRTDVGKSLRIHWYTRSDSAIYCE--VVALNDRKREVDTEITLYOVKRVTP 142

Db 162 -----RFVVLANNYLDIRIGIKTKDECTYRCGGITLA---RGEINYDIOIVYVNPPTIQ 212

QY 143 V--CRIPAAVPVCGTATLQOCSECEGYPRPHYSWYRNDVPLPTDSRAPRPNSSFFHNS 200

Db 213 ARQLRVNATFAKMAESVVLSC-DADGFPDPPEISWIKKEPEIEDG-----EKISF--NED 263

QY 201 TGTILVENAHRKDSGGQYTCIASNDAGAA 228

Db 264 QSEWTHIHWKDEDAEYSCIANNQGEA 291

##### RESULT 2

IJXLNTL neural cell adhesion molecule long domain form precursor - African clawed frog

N/Alternate names: NCAM-180

N/Contents: neural cell adhesion molecule, short domain form (NCAM-140)

C/Species: Xenopus laevis (African clawed frog)

C/Date: 31-Mar-1993 #sequence\_revision 31-Mar-1993 #text\_change 22-Jun-1999

C/Accession: S09600

R/Krieg, P.A.; Sakaguchi, D.S.; Kintner, C.R.

Nucleic Acids Res. 17, 10321-10335, 1989  
A:Title: Primary structure and developmental expression of a large cytoplasmic domain of  
A:Reference number: 509600; MUID:90098871  
A:Accession: 509600  
A:Molecule type: mRNA  
A:Residues: 1-1088 <RID>  
A:Cross-references: EMBL:M25696; NID:q214609; PIDN:AAA49909.1; RID:q214610  
A:Note: the authors translated the codon AAA for residue 970 as Leu  
C:Comment: NCAM mediates cell-cell adhesion via homophilic binding with another NCAM mol  
C:Genetics: Several forms of NCAM are produced by alternative splicing.  
A:Gene: NCAM  
C:Superfamily: neural cell adhesion molecule; fibronectin type III repeat homology; immu  
C:Keywords: alternative splicing; brain; cell adhesion; duplication; heparin binding; s  
F:1-19/Domin: signal sequence #status predicted <SIG>  
F:20-1088/Product: neural cell adhesion molecule, long domain form #status predicted <L  
F:20-803,1050-1088/Product: neural cell adhesion molecule, short domain form #status pre  
F:20-703/Domin: extracellular #status predicted <EXT>  
F:34-95/Domin: immunoglobulin homology <IMM1>  
F:188/Domin: immunoglobulin homology <IMM2>  
F:153/Region: heparin binding #status predicted  
F:153-162/Region: heparin binding #status predicted  
F:284/Domin: immunoglobulin homology <IMM3>  
F:381/Domin: immunoglobulin homology <IMM4>  
F:433-475/Domin: immunoglobulin homology <IMM5>  
F:512-589/Domin: fibronectin type III repeat homology <FN3A>  
F:618-679/Domin: fibronectin type III repeat homology <FN3B>  
F:706-723/Domin: transmembrane #status predicted <TM>  
F:724-1088/Domin: intracellular #status predicted <INT>  
F:41-93,136-186,222-282,323-379,420-473/Dissulfide bonds: #status predicted  
F:219,310,341,417,443,472/Binding site: carbohydrate (asn) (covalent) #status predicted

Query Match 11.0%; Score 180; DB 1; Length 1088;  
Best Local Similarity 28.8%; Pred. No. 1.2e-06;  
Matches 60; Conservative 33; Mismatches 81; Indels 34; Gaps 11;

QY 32 VNLK-----SSNRNPVHEFESEVLSCTIHTSOTSDPR-IEKK-KIQDQTTYVYFDNKI 84  
DB 107 VNLKTYKLTFFKNAPTPQDFKEGEDAVIICDVSSISPIITRHNGKD-----VIFKKDV 161  
QY 85 QGDLAGRIDVGEKTLRLIMNTRSDSAIYRCF--VVALNDKREVDTEITELIVQKPVTP 142  
DB 162 -----RVVLANNTLQJRGIKTKDEGRYRCGRILA--RGEINKDKQIVLVNPPITQ 212  
QY 143 V--CRIPAAVPGKTTATLQCOSEGYPRPHYSWYNDVPLPTDSRANPRFQSSFFVNSE 200  
DB 213 AROLFVNAITANAESVYLSC-DADGPPDEISWLKGEPIEDGE-----EKISF--NED 263  
QY 201 TGTLVNAVHKDDSGQYCIASNDGAA 228  
DB 64 QSEMTIHVYKDEADAEYSICIANNOGEA 291

RESULT 3  
A39712  
kinase-like protein klg precursor - chicken  
C:Species: Gallus gallus (chicken)  
C:Date: 08-Nov-1991 #sequence\_revision 08-Nov-1991 #text\_change 24-Sep-1999  
C:Accession: A39712  
R:Chou, Y.H.; Hayman, M.J.  
Proc. Natl. Acad. Sci. U.S.A. 88, 4897-4901, 1991  
A:Title: Characterization of a member of the immunoglobulin gene superfamily that possi  
A:Reference number: A39712; MUID:91271300  
A:Accession: A39712  
A:Status: Preliminary  
A:Molecule type: mRNA  
A:Residues: 1-1051 <CHO>  
A:Cross-references: GB:M63437; NID:q212235; PIDN:AAA48933.1; PID:q212236  
C:Superfamily: unassigned Ser/Thr or Tyr-specific protein kinases; protein kinase homolo  
C:Keywords: ATP  
F:775-1046/Domin: protein kinase homology <KIN>  
F:783-791/Region: protein kinase ATP-binding motif

Query Match 10.9%; Score 178; DB 2; Length 1051;  
Best Local Similarity 28.3%; Pred. No. 1.7e-06;  
Matches 72; Conservative 29; Mismatches 109; Indels 44; Gaps 12;

QY 45 EF-ESVELSCITHTSOTSDPRIEMKKIQDQTTYVYFDNKTQGLDAGRTVGEKTSRLTW 103  
DB 496 ENKEVYVCSATGRF-KPTIQWTK-RDQ-----SLPSVSHRNGI-----LSHF 539  
QY 104 NTRSDSAIYRCFVVALNDKREVDTEITELIVQKPVTPVPCIRPAVPGKTTATLQCOES 163  
DB 540 KYSRSDSGWYTC--IANSPOGEIRATYQLVVAVYVTEKLEPEPTTYVQGHAMFOCO-A 596  
QY 164 EGYPRPHYSWYNDVPLPTDSRANPRFQSSPHVNSEGTIVFNVHKDDSGQYCIASN 223  
DB 597 EDDPVPFHQMKDKIL-DPSKILPRIQ-----IMPNSLIYDVTTEDSGKYCIACN 649  
QY 224 DA-----GAARCEGQDMEV-YD-LNIAIGVVLVLAIVTNGICCA 266  
DB 650 SCNIKREAFLYVDKPAEEDGEPSSHYPYKMIQTIGLSGAAVAYIIVGLMFYCKK 709  
QY 267 YRGCFTSSKQGE 280  
DB 710 RRRKANRLKKHPEGE 723

RESULT 4  
A31923  
amalgam protein precursor - fruit fly (Drosophila melanogaster)  
C:Species: Drosophila melanogaster  
C:Date: 18-Oct-1989 #sequence\_revision 18-Oct-1989 #text\_change 21-Jul-2000  
R:Seeger, M.A.; Hatfield, L.; Kaufman, T.C.  
Cell 55, 589-600, 1988  
A:Title: Characterization of amalgam: a member of the immunoglobulin superfamily from  
A:Reference number: A31923; MUID:89028670  
A:Accession: A31923  
A:Molecule type: DNA  
A:Residues: 1-333 <SEB>  
A:Cross-references: GB:M23561; NID:q156920; PIDN:AAA28367.1; PID:q156921  
C:Genetics:  
A:Gene: Flybase:Ama  
A:Cross-references: Flybase:FBgn0000071

Query Match 10.8%; Score 177; DB 2; Length 333;  
Best Local Similarity 27.2%; Pred. No. 5.4e-07;  
Matches 53; Conservative 38; Mismatches 82; Indels 22; Gaps 6;

QY 35 KSSNRNPVHEFESEVLSCTIHTSQ-TSDPRIEMKKIQDQTTYVYFDNKTQGLDAGRTD 93  
DB 143 ENTPKSTLYTEGONLELT--HANGFPKTIISMARENAAV-----HPAGH 186  
QY 94 VEGKTSRLIMNTRSDSAIYRCFVVALNDKREVDTEITELIVQKPVTPVPCIRPAVPG 153  
DB 187 LLAEPFLRLRSVHRMDRGYTC--IAQNGEQPDRLILVEEFPRLQAVQPKIAQWVS 244  
QY 154 KTATLQCOSEGYPRPHYSWYNDVPLPTDSRANPRFQSSPHVNSEGTIVFNVHKDD 213  
DB 245 HSAELEEC-SVQGYPAFTVVMHKNQVPL--QSSRHHEVANTASSSGTTTSLRIDSVGED 301  
QY 214 SGOYCIASNDGAA 228  
DB 302 PGDYICNATNKLGAH 316

RESULT 5  
I3RTNC  
neural cell adhesion molecule short domain form precursor - rat  
N:Alternate names: NCAM-140  
C:Species: Rattus norvegicus (Norway rat)  
C:Date: 30-Sep-1991 #sequence\_revision 30-Sep-1991 #text\_change 22-Jun-1999

GenCore version 4.5  
Copyright (c) 1993 - 2000 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: August 6, 2001, 09:33:40 ; Search time 13.3 Seconds

(without alignments)  
798,436 Million cell updates/sec

Title: US-09-524-531A-13

Perfect score: 1633

Sequence: 1 MALSRRLRLRLYLARLPHPFL.....VNYIRTSEGDGRHKSFEVI 310

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Sequences: 93435 seqs, 34255486 residues

Number of hits satisfying chosen parameters: 93435

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%

Listing first 45 summaries

Database : SwissProt\_39.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	505	30.9	298	VEJA_HUMAN	P57087 homo sapien
2	449.5	27.5	300	JAM1_MOUSE	O88792 mus musculi
3	415	25.4	299	JAM1_HUMAN	O9Y624 homo sapien
4	409.5	25.1	298	JAM1_BOVIN	O9X556 bos taurus
5	242.5	14.8	319	A33_HUMAN	O99795 homo sapien
6	180	11.0	1088	NCA1_XENLA	P16170 xenopus lae
7	178	10.9	1051	PTK7_CHICK	O91048 gallus galli
8	177	10.8	333	AMAL_DROME	P15364 drosophila
9	172.5	10.6	365	CXAR_HUMAN	P78310 homo sapien
10	172.5	10.6	837	NCA2_MOUSE	O35136 mus musculi
11	172.5	10.6	858	NCA1_RAT	P13596 rattus norv
12	170	10.4	349	LACH_SCHAM	O26474 schistocerc
13	169.5	10.4	725	NCA2_MOUSE	P13594 mus musculi
14	169.5	10.4	1115	NCA1_MOUSE	P13595 mus musculi
15	169	10.3	1092	NCA2_XENLA	P36335 xenopus lae
16	167.5	10.3	837	NCA2_HUMAN	O15394 homo sapien
17	167.5	10.3	3707	PGKM_MOUSE	O05793 mus musculi
18	164.5	10.1	853	NCA1_BOVIN	P31836 bos taurus
19	163	10.0	761	NCA2_HUMAN	P13592 homo sapien
20	163	10.0	848	NCA1_HUMAN	P13591 homo sapien
21	161	9.9	1377	NEO1_RAT	P97798 rattus norv
22	159	9.7	1091	NCA1_CHICK	P97603 rattus norv
23	156	9.6	344	NTR1_RAT	O62718 rattus norv
24	156	9.6	1493	NEO1_MOUSE	P97792 mus musculi
25	155	9.5	353	CEBU_CHICK	O90773 gallus galli
26	151.5	9.3	365	CXAR_MOUSE	P97792 mus musculi
27	151.5	9.3	811	FS22_DROME	P34083 drosophila
28	151.5	9.3	873	FS21_DROME	P34082 drosophila
29	151	9.2	1912	PTPD_HUMAN	P23468 homo sapien
30	150	9.2	1694	SN_MOUSE	O62230 mus musculi
31	149.5	9.2	4393	PGKM_HUMAN	P98160 homo sapien
32	148.5	9.1	1070	PTK7_HUMAN	O13308 homo sapien
33	148.5	9.1	1461	NEO1_HUMAN	O92859 homo sapien

34	148	9.1	1040	1	AXO1_HUMAN	O02246 homo sapien
35	148	9.1	1040	1	AXO1_RAT	P22063 rattus norv
36	147.5	8.9	847	1	CD22_HUMAN	P20273 homo sapien
37	145	8.9	359	1	LACH_DROME	O24372 drosophila
38	144.5	8.8	702	1	CCEM_HUMAN	P06731 homo sapien
39	144	8.8	521	1	BGPI_MOUSE	P31809 mus musculi
40	143.5	8.8	1443	1	NEO1_CHICK	O90610 gallus galli
41	143	8.8	345	1	OPCM_BOVIN	P1834 bos taurus
42	143	8.8	345	1	OPCM_RAT	P32736 rattus norv
43	142.5	8.7	1260	1	CAML_MOUSE	P1627 mus musculi
44	142.5	8.7	1447	1	DCC_MOUSE	P70211 mus musculi
45	140.5	8.6	2012	1	DSCA_HUMAN	O60469 homo sapien

## ALIGNMENTS

RESULT	1	VEJA_HUMAN	STANDARD	PRT	298 AA.
ID	VEJA_HUMAN				
AC	P57087				
DT	01-OCT-2000 (Rel. 40, Created)				
DT	01-OCT-2000 (Rel. 40, Last sequence update)				
DT	01-OCT-2000 (Rel. 40, Last annotation update)				
DE	VASCULAR ENDOTHELIAL JUNCTION-ASSOCIATED MOLECULE PRECURSOR (VE-JAM).				
GN	C21ORF43.				
OS	Homo sapiens (Human).				
OC	Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;				
OC	Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.				
OX	NCBI_TaxID=9606;				
RN	[1]				
RP	SEQUENCE FROM N.A.				
RC	TRISSE-Vascular endothelial cells;				
RC	MEDLINE=20317114; PubMed=10779521;				
RA	Palmeri D., van Zante A., Huang C.C., Hemmerich S., Rosen S.D.;				
RT	"Vascular endothelial junction-associated molecule, a novel member of				
RT	the immunoglobulin superfamily, is localized to intercellular				
RT	boundaries of endothelial cells.";				
RL	J. Biol. Chem. 275:19139-19145(2000).				
CC	- FUNCTION: MAY PLAY A ROLE IN THE PROCESSES OF LYMPHOCYTE HOMING TO				
CC	SECONDARY LYMPHOID ORGANS.				
CC	- SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN (POTENTIAL).				
CC	- TISSUE SPECIFICITY: PROMINENTLY EXPRESSED ON HIGH ENDOTHELIAL				
CC	VENULES BUT IS ALSO PRESENT ON THE ENDOTHELIA OF OTHER VESSELS.				
CC	LOCALIZED TO THE INTERCELLULAR BOUNDARIES OF HIGH ENDOTHELIAL				
CC	CELLS.				
CC	- SIMILARITY: CONTAINS 1 IMMUNOGLOBULIN-LIKE V-TYPE DOMAIN.				
CC	- SIMILARITY: CONTAINS 1 IMMUNOGLOBULIN-LIKE C2-TYPE DOMAIN.				
CC	This SWISS-PROT entry is copyright. It is produced through a collaboration				
CC	between the Swiss Institute of Bioinformatics and the EMBL outstation -				
CC	the European Bioinformatics Institute. There are no restrictions on its				
CC	use by non-profit institutions as long as its content is in no way				
CC	modified and this statement is not removed. Usage by and for commercial				
CC	entities requires a license agreement (See <a href="http://www.isb-sib.ch/announce/">http://www.isb-sib.ch/announce/</a>				
CC	or send an email to <a href="mailto:license@sib-sib.ch">license@sib-sib.ch</a> ).				
DR	EMBL: AF255910; AAF81223.1; -				
KW	Immunoglobulin domain; Glycoprotein; Transmembrane; Signal.				
FT	SIGNAL	1	20	POTENTIAL.	
FT	CHAIN	21	298	POTENTIAL.	
FT	DOMAIN	21	238	EXTRACELLULAR (POTENTIAL).	
FT	TRANSMEM	239	259	POTENTIAL.	
FT	DOMAIN	260	298	CYTOPLASMIC (POTENTIAL).	
FT	DOMAIN	43	116	IG-LIKE V-TYPE DOMAIN.	
FT	DOMAIN	148	221	IG-LIKE C2-TYPE DOMAIN.	
FT	DISULFID	50	109	POTENTIAL.	
FT	DISULFID	155	214	POTENTIAL.	
FT	CARBOHYD	98	98	N-LINKED (GLCNAC. . .) (POTENTIAL).	
FT	CARBOHYD	187	187	N-LINKED (GLCNAC. . .) (POTENTIAL).	
FT	CARBOHYD	236	236	N-LINKED (GLCNAC. . .) (POTENTIAL).	
FT	SEQUENCE	298 AA.	33207 MW;	CAV8E518E22DCAEE CRC64;	



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OM protein - protein search, using sw model

Run on: August 6, 2001, 09:33:10 : Search time 35.5 Seconds

(without alignments)  
1155.340 Million cell updates/sec

Title: US-09-524-531a-13

Sequence: 1 MALSRLRLRLVRLPHFL.....VNIYRSEGGDFRHKSSFYI 310

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Sequences: 425026 seqs, 132305027 residues

Total number of hits satisfying chosen parameters: 425026

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :  
1: SP\_ARCHAEA:\*  
2: SP\_BACTERIA:\*  
3: SP\_FUNGI:\*  
4: SP\_HUMAN:\*  
5: SP\_INVERTEBRATE:\*  
6: SP\_MAMMAL:\*  
7: SP\_MHC:\*  
8: SP\_ORGANELLE:\*  
9: SP\_PHAGE:\*  
10: SP\_PLANT:\*  
11: SP RODENT:\*  
12: SP UNCLASSIFIED:\*  
13: SP VERTEBRATE:\*  
14: SP VIRUS:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1615	98.9	310	11	Q9EPK4 mus musculu
2	497.5	30.5	298	11	Q9J159 mus musculu
3	450.5	27.6	300	11	Q9JHY1 rattus norv
4	340	20.8	259	4	Q9Y5B2 homo sapien
5	321	19.7	173	11	Q9IKD5 rattus norv
6	257	15.7	318	13	Q91664 xenopus lae
7	240.5	14.7	319	11	Q9UKA5 mus musculu
8	219	13.4	325	4	Q95791 homo sapien
9	214	13.1	335	13	Q9PWR4 gallus galli
10	213	13.0	284	4	Q9NKA2 homo sapien
11	212	13.0	328	11	Q92109 mus musculu
12	209.5	12.8	335	13	Q9YGH1 gallus galli
13	208	12.7	335	13	Q9YGV5 gallus galli
14	199	12.2	181	13	Q91665 xenopus lae
15	197	12.1	259	4	Q95532 homo sapien
16	182.5	11.2	358	13	Q90490 brachydactyl
17	181	11.1	725	13	Q73633 xenopus lae
18	177	10.8	333	5	Q9V3AS drosophila
19	174.5	10.7	319	6	Q9TUB0 canis fami

20	172.5	10.6	344	4	Q9UKV4 xenopus lae
21	169	10.3	725	13	Q73634 drosophila
22	168.5	10.3	935	5	Q9VWZ7 drosophila
23	168	10.3	340	11	Q61349 mus musculu
24	167.5	10.3	6442	5	Q01761 caenorhabd
25	166	10.2	483	4	Q9UR14 homo sapien
26	165.5	10.1	1496	4	Q92626 homo sapien
27	164.5	10.1	352	5	Q76697 caenorhabd
28	164.5	10.1	733	4	Q9HB84 homo sapien
29	164	10.0	3762	4	Q10465 homo sapien
30	163	10.0	344	4	Q9P121 homo sapien
31	163	10.0	381	4	Q9Y4A4 homo sapien
32	162	9.9	5198	5	Q76518 caenorhabd
33	161	9.9	351	5	Q9V0Y0 drosophila
34	160	9.8	869	4	Q15146 homo sapien
35	160	9.8	875	5	Q76698 caenorhabd
36	160	9.8	1083	5	Q9U4D1 caenorhabd
37	160	9.8	1482	5	Q9V4Y0 drosophila
38	159.5	9.8	1277	13	Q9B902 fugu rubrip
39	158.5	9.7	319	6	Q9T079 sus scrofa
40	158.5	9.7	858	5	Q18466 hirtudo medi
41	158.5	9.7	1252	11	Q9E0S9 mus musculu
42	158.5	9.7	1253	11	Q9E0S8 mus musculu
43	157	9.6	313	13	Q57596 gallus galli
44	157	9.6	315	13	Q9G415 gallus galli
45	157	9.6	344	13	Q93242 gallus galli

## ALIGNMENTS

RESULT	1	PRELIMINARY:	PRT:	310 AA.
Q9EPK4	Q9EPK4			
AC	Q9EPK4			
DT	01-MAR-2001 (TREMBLrel. 16, Created)			
DT	01-MAR-2001 (TREMBLrel. 16, Last sequence update)			
DT	01-MAR-2001 (TREMBLrel. 16, Last annotation update)			
DE	JUNCTIONAL ADHESION MOLECULE-2, JAM-2.			
GN	JAM-2.			
OS	Mus musculus (Mouse).			
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;			
OC	Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.			
OX	NCBI_TaxID=10090;			
RP	SEQUENCE FROM N.A.			
RN	[1]			
RX	PubMed=11036763;			
RA	Aurand-Lions M.A., Duncan L., Du Pasquier L., Imhof B.A.;			
RT	"Cloning of JAM-2 and JAM-3: an Emerging Junctional Adhesion Molecular			
RT	Family?";			
RL	Curr. Top. Microbiol. Immunol. 251:91-98(2000).			
DR	EMBL: AJ300304; CAC20704.1; -			
SO	SEQUENCE 310 AA; 34837 MW; 4B92BCB51D0AAB0A CRC64;			
Query Match	98.9%;	Score 1615;	DB 11;	Length 310;
Best Local Similarity	99.4%;	Pred. No. 2.2e-153;		
Matches 308;	Conservative 0;	Mismatches 2;	Indels 0;	Gaps 0;
QY	1 MALSRLRLRLVRLPHFLLLFRGCMIEAVNLKSSNRNPVHFESEVLSCTIHSQT 60			
DB	1 MALSRLRLRLVRLPHFLLLFRGCMIEAVNLKSSNRNPVHFESEVLSCTIHSQT 60			
QY	61 SDRIRMKRTKIDGQTYVVFNDNKIIGDLGRVDPKTSIRINVTNRSSAIRCVAAL 120			
DB	61 SDRIRMKRTKIDGQTYVVFNDNKIIGDLGRVDPKTSIRINVTNRSSAIRCVAAL 120			
QY	121 NDRKEVDITIELIVQKPTVPCRIPAAPVPGKTATLQCESEGYPRPHYSRYRDVPL 180			
DB	121 NDRKEVDITIELIVQKPTVPCRIPAAPVPGKTATLQCESEGYPRPHYSRYRDVPL 180			
QY	181 PTDSRANPRFONSFRVNSSETGLVFNVAHKDSSGYCTIASNDAGARCEGDMEVYDL 240			
DB	181 PTDSRANPRFONSFRVNSSETGLVFNVAHKDSSGYCTIASNDAGARCEGDMEVYDL 240			

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Db 181 PTDSPANRPFONSSPHVNSTGTLVFNMAVHKDDSGQYICIASNDAGAACRCGDMEVYDL 240
Qy 241 NIAGTIGGLVLLVLYAVITMGICCAVRRGCFISSKODESYKSPGKHGVMYRTSEEG 300
Db 241 NIAGTIGGLVLLVLYAVITMGICCAVRRGCFISSKODESYKSPGKHGVMYRTSEEG 300
Qy 301 DFRHKSFEVI 310
Db 301 DFRHKSFEVI 310

RESULT 2
ID 09J159 PRELIMINARY; PRT: 298 AA.
AC 09J159;
DT 01-OCT-2000 (TREMBLrel. 15, Created)
DT 01-OCT-2000 (TREMBLrel. 15, Last sequence update)
DT 01-MAR-2001 (TREMBLrel. 16, Last annotation update)
DE VASCULAR ENDOTHELIAL JUNCTION-ASSOCIATED MOLECULE (JUNCTIONAL ADHESION MOLECULE-3).
GN FAM-3.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=C57BL/6J;
RX MEDLINE=20317114; PubMed=10779521;
RA Palmeri D., van Zante A., Huang C.-C., Hemmerich S., Rosen S.D.; "Vascular Endothelial Junction-associated Molecule, a Novel Member of the Immunoglobulin Superfamily, is Localized to Intercellular Boundaries of Endothelial Cells." J. Biol. Chem. 275:19139-19145(2000).
RN [2]
RP SEQUENCE FROM N.A.
RX PubMed=11036763;
RA Aurand-Lions M.A., Duncan L., Du Pasquier L., Imhof B.A.; "Cloning of JAM-2 and JAM-3: an Emerging Junctional Adhesion Molecular Family?" J. Cell. Physiol. 185:125-135(2000).
RN [3]
RP Curr. Top. Microbiol. Immunol. 251:91-98(2000).
RX EMBL; AF255911; AAC81224.1; -;
DR InterPro; IPR003006; -;
DR InterPro; IPR003598; -;
DR Pfam; PF00047; 1g; 2.
DR SMART; SM00408; IGC2; 1.
SQ SEQUENCE 298 AA; 33047 MW; 1124E0F07E6CF751 CRC64;

Query Match 30.5%; Score 497.5; DB 11; Length 298;
Best Local Similarity 37.3%; Pred. No. 1.5e-41;
Matches 116; Conservative 53; Mismatches 115; Indels 27; Gaps 9;

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Qy 300 GDFRHKSFVI 310
Db 288 NDFKHTKSFII 298

RESULT 3
ID 09JHY1 PRELIMINARY; PRT: 300 AA.
AC 09JHY1;
DT 01-OCT-2000 (TREMBLrel. 15, Created)
DT 01-OCT-2000 (TREMBLrel. 15, Last sequence update)
DT 01-MAR-2001 (TREMBLrel. 16, Last annotation update)
DE JUNCTIONAL ADHESION MOLECULE JAM.
GN JAM.
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
NCBI_TaxID=10116;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=SPRAGUE DAWLEY;
RA Mashima H., Kojima I.; Submitted (JUN-2000) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF276998; AAF78250.1; -;
DR InterPro; IPR003006; -;
DR InterPro; IPR003596; -;
DR Pfam; PF00047; 1g; 2.
DR SMART; SM00406; IGV; 1.
SQ SEQUENCE 300 AA; 32369 MW; 45AE36296158BFA CRC64;

Query Match 27.6%; Score 450.5; DB 11; Length 300;
Best Local Similarity 38.0%; Pred. No. 7.4e-37;
Matches 114; Conservative 52; Mismatches 115; Indels 19; Gaps 10;

```



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OM protein - protein search, using sw model

Run on: August 6, 2001, 09:31:09 ; Search time 19.31 Seconds

(Without alignments)  
330,554 Million cell updates/sec

Title: US-09-524-531a-13

Perfect score: 1633

Sequence: 1 MALSRRRLRLRLYLARLPHEFL.....VNYITSEGGDFRHSSEFVI 310

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Sequences: 197339 seqs, 20590346 residues

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Issued\_Patents\_AA:\*

- 1: /cgn2\_6/ptodata/1/1aa/5a\_COMB.pep:\*
- 2: /cgn2\_6/ptodata/1/1aa/5b\_COMB.pep:\*
- 3: /cgn2\_6/ptodata/1/1aa/6a\_COMB.pep:\*
- 4: /cgn2\_6/ptodata/1/1aa/6b\_COMB.pep:\*
- 5: /cgn2\_6/ptodata/1/1aa/PCITUS.COMB.pep:\*
- 6: /cgn2\_6/ptodata/1/1aa/backfilese1.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result	Score	Query Match	Length	DB ID	Description
1	415	25.4	299	4	US-09-188-930-331
2	403	24.7	299	4	US-09-188-930-189
3	242.5	14.8	319	1	US-08-597-4958-22
4	173.5	10.6	365	4	US-08-928-3838-2
5	172.5	10.6	365	2	US-08-979-424-3
6	172.5	10.6	365	4	US-09-272-496-2
7	171.5	10.5	390	2	US-08-979-424-1
8	166	10.2	1101	3	US-08-986-485-2
9	160	9.8	869	1	US-08-374-834-16
10	156.5	9.6	365	4	US-08-928-3838-23
11	156.5	9.6	365	4	US-08-928-3838-24
12	151.5	9.3	365	4	US-08-928-3838-26
13	151	9.2	1091	3	US-08-986-485-5
14	148	9.1	607	2	US-08-752-3078-12
15	147.5	9.0	501	2	US-08-408-095-31
16	147	9.0	95	4	US-08-928-3838-18
17	146.5	9.0	478	5	PCIT-US95-08493-15
18	146.5	9.0	860	5	PCIT-US95-08493-19
19	146.5	9.0	868	5	PCIT-US95-08493-21
20	144.5	8.8	734	2	US-08-602-725-36
21	144.5	8.8	734	2	US-08-389-459A-17
22	144.5	8.8	734	3	US-08-987-867A-17
23	144.5	8.8	868	1	US-08-374-834-1
24	144.5	8.8	868	2	US-08-644-271-1
25	141	8.6	338	2	US-08-414-657D-60
26	141	8.6	642	1	US-08-217-299-1
27	141	8.6	642	1	US-08-217-299-1

28	141	8.6	1501	2	US-08-447-464-3	Sequence 3, App1
29	141	8.6	1501	2	US-08-716-679-3	Sequence 3, App1
30	139.5	8.5	612	2	US-08-752-3078-11	Sequence 11, App1
31	139.5	8.5	1447	4	US-09-041-886-25	Sequence 25, App1
32	139.5	8.5	1447	5	PCIT-US94-05277-2	Sequence 2, App1
33	139	8.5	310	2	US-08-414-657D-45	Sequence 45, App1
34	139	8.5	310	2	US-08-414-657D-42	Sequence 42, App1
35	139	8.5	310	2	US-08-414-657D-43	Sequence 43, App1
36	138.5	8.5	252	2	US-08-414-657D-56	Sequence 56, App1
37	138.5	8.5	252	2	US-08-414-657D-57	Sequence 57, App1
38	138.5	8.5	287	2	US-08-414-657D-48	Sequence 48, App1
39	138.5	8.5	287	2	US-08-414-657D-49	Sequence 49, App1
40	138.5	8.5	304	2	US-08-414-657D-44	Sequence 44, App1
41	138.5	8.5	308	2	US-08-414-657D-46	Sequence 46, App1
42	138.5	8.5	315	2	US-08-414-657D-47	Sequence 47, App1
43	138.5	8.5	325	2	US-08-414-657D-2	Sequence 2, App1
44	138.5	8.5	325	2	US-08-414-657D-41	Sequence 41, App1
45	135.5	8.3	662	1	US-08-261-304-7	Sequence 7, App1

## ALIGNMENTS

RESULT 1

US-09-188-930-331

Sequence 331, Application US/09188930A

Patent No. 6150502

GENERAL INFORMATION:

APPLICANT: Watson, James D.

APPLICANT: Strachan, Lotna

APPLICANT: Sleeman, Mathew

APPLICANT: Onrust, Rene

APPLICANT: Murison, James Greg

TITLE OF INVENTION: Compositions Isolated From Skin Cells

FILE REFERENCE: 11000.1011c

CURRENT APPLICATION NUMBER: US/09/188,930A

CURRENT FILING DATE: 1998-11-09

NUMBER OF SEQ ID NOS: 348

SOFTWARE: FastSeq for Windows Version 3.0

SEQ ID NO 331

LENGTH: 299

TYPE: PRT

ORGANISM: Human

US-09-188-930-331

Query Match 25.4% Score 415, DB 4, Length 299;

Best Local Similarity 33.8% Pred. No. 7.4e-34;

Matches 100; Conservative 50; Mismatches 132; Indels 14; Gaps 6;

QY	18	FFLLLLFRGCMIEAVNKKSSNRNPVHFEFSEVLCITHTSQTSDPRLEKKTIODGQTTY	77
DB	15	FILATILCSIALGSVYVHSSEPEVRIPENPVKLSG--AISGSSPVEKKFDGDTTRL	72
QY	78	VYEDNKIOGCLAGTDFVGTSLRINMVTSDSAIYCEVVALNDRKVEDEITELIVQV	137
DB	73	VCVNNKTKTAYEDRV-TFLPTGTFIKFVTRREDTGTYC-NVSEGGNSYGEVAKLIVL	130
QY	138	KPVTVPCRIPAAVPVGKTATLQCESEGYRPHYSWYRNDVPLPTDSRANPRQNSSEFHV	197
DB	131	PKSPKPTVINISSATIGRAVLTCSSEGGSPSEYTWFKDGIWPTNPKSTRAFSSSYVL	190
QY	198	NSETGLTVFAVNAVKHDSGOYVCIASNDAGARCEGO-DMEVYDLNAGITIGVLYVLYV	256
DB	191	NPTTGLVFPPLLASDPEGEYSCARNGYGPMTSNAYRAVRRNGVIAAVALVTLTL	250
QY	257	AVLTMGICAYRRCGCFISSKODESYKSPGKHGCVNIRTS--EEGDFRHSSEFVI	310
DB	251	GILVFGIWFVYSRGHDPRTKKTSSKR-----VIISQPSANSBGEFKOTSSFLV	299

RESULT 2

